<400> 1

<110> Rosen et al. <120> 28 Human Secreted Proteins <130> PZ003P3 <140> Unassigned <141> 2001-05-11 <150> 60/265,583 <151> 2001-02-02 <150> 09/152,060 <151> 1998-09-11 <150> PCT/US98/04858 <151> 1998-03-12 <150> 60/040,762 <151> 1997-03-14 <150> 60/040,710 <151> 1997-03-14 <150> 60/050,934 <151> 1997-05-30 <150> 60/048,100 <151> 1997-05-30 <150> 60/048,357 <151> 1997-05-30 <150> 60/048,189 <151> 1997-05-30 <150> 60/057,765 <151> 1997-09-05 <150> 60/048,970 <151> 1997-06-06 <150> 60/068,368 <151> 1997-12-19 <160> 118 <170> PatentIn Ver. 2.0 <210> 1 <211> 733 <212> DNA <213> Homo sapiens

```
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
                                                                         60
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
                                                                        120
tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg
                                                                        180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                        240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                        300
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                        360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                        420
cateceggga tgagetgace aagaaceagg teageetgae etgeetggte aaaggettet
                                                                        480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
                                                                        540
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                        600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                        660
acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc
                                                                        720
gactctagag gat
                                                                        733
<210> 2
<211> 5
<212> PRT
<213> Homo sapiens
<220>
<221> Site
<222> (3)
<223> Xaa equals any of the twenty naturally ocurring L-amino acids
<400> 2
Trp Ser Xaa Trp Ser
  1
<210> 3
<211> 86
<212> DNA
<213> Homo sapiens
<400> 3
gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc
                                                                         60
cccgaaatat ctgccatctc aattag
<210> 4
<211> 27
<212> DNA
<213> Homo sapiens
<400> 4
gcggcaagct ttttgcaaag cctaggc
                                                                         27
<210> 5
<211> 271
<212> DNA
<213> Homo sapiens
<400> 5
ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
                                                                         60
aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc
                                                                        120
gcccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa tttttttat
                                                                        180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
                                                                        240
```

ttttggaggc	ctaggctttt	gcaaaaagct	t			271
<210> 6 <211> 32 <212> DNA <213> Homo	sapiens					
<400> 6 gcgctcgagg	gatgacagcg	atagaacccc	gg	•		32
<210> 7 <211> 31 <212> DNA <213> Homo	sapiens	-				
<400> 7 gcgaagcttc	gcgactcccc	ggatccgcct	С			- 31
<210> 8 <211> 12 <212> DNA <213> Homo	sapiens					
<400> 8 ggggactttc	CC		•			12
<210> 9 <211> 73 <212> DNA <213> Homo			-			
<400> 9 gcggcctcga ccatctcaat	ggggactttc tag	ccggggactt	tccggggact	ttccgggact	ttccatcctg	60 73
<210> 10 <211> 256 <212> DNA <213> Homo	sapiens					
caattagtca cagttccgcc	ctttcccggg gcaaccatag cattctccgc gcctctgagc aagctt	tcccgcccct cccatggctg	aactccgccc actaattttt	atcccgcccc tttatttatg	taactccgcc cagaggccga	60 120 180 240 256
<210> 11 <211> 2084 <212> DNA <213> Homo	sapiens					

```
<220>
<221> SITE
<222> (839)
<223> n equals a,t,g, or c
<400> 11
ctatcagatg ctgggcctcc tcagccatag ccccctgctc ctaccccctg actggctctt
                                                                         60
gtgtcctcac ctctcaccct ctccttcctg ggaggccctg ggaggtgatc attgacaccc
                                                                        120
                                                                        180
agccaagcag acagctgcgg gtgcccaagc ccttgctggg cctgcgcgtg aggagtccca
ctgcttctaa aggaagtcct gggcaggagg tggctttggt ggttggttcc aaagttgaaa
                                                                        240
atgcttgcag tttgacctta gaagaagtgg gaagaagaag gagctctaca gggtcagctt
                                                                        300
                                                                        360
tgtttgattt gtccagtcta agaagtccca ttgccaaagc tttctgcagg agggtgaatg
                                                                        420
ccgcagcttg gcagcccctg ggtttctctt ggaaatggtc agtttcccct caaagtaccc
                                                                        480
aaagtagcct tggcttgagt ttttgtcctt gcctcctttt tagagaagag ggcatttaga
                                                                        540
ctgcattttc ctggttaaag aaggttaaag caaatgttta ttgccttttc tagtgaacta
                                                                        600
actcgtagag atgttctcag caggaagaca gtcttagcac tgtcacttag cagattgcac
                                                                        660
ttaagtccct tgtgctggcc agatggcgtg gctggttgcc ttaatatgtc ccaggacccc
                                                                        720
tgacagggct gcctggcctc tccctcgtgc tcctcaagag cccagtccat acactgtgga
tgtcattgct gtcgggttag gaagtcttgt cctagaacgc cctggctggt atgaccacag
                                                                        780
                                                                        840
ttcatggcgg ctcttctcgc ttgggtcatg gtcatcttcc agcacctgct gtgctgggna
                                                                        900
aggccgagga tgggggccca gcactgtcca ggcctgctgg ggcctggctg ggagtcctgt
                                                                        960
gggcagcatg gaacatgcag ctgggcttcc tgtgaccagg caccctctgg cactgttgct
tgccctgtgc cctggacctt ttcctgccct tctccttcct ctgctccctt ggggctaccc
                                                                       1020
                                                                       1080
cttggcccct cctggtctgt gcaaactccc tcagggagcc cccctgccct gtagctctcr
                                                                       1140
cttaacttcc taggggctgc tgagcccacc cagaggttgt tggagttcag cggggcagct
                                                                       1200
tgtctccctt gtcagcaggg gcgtaagggc tgggtttggc catacaaggt tggctacgcc
ctcaatccct gaccgttcca ggcactgagc tgggcaccca cggaaggaca tgctgtccag
                                                                       1260
                                                                       1320
actgtgatga ctgccagcac agggcatctc gggcttggct ggtctgcgag gccttgcccc
                                                                       1380
tgtggaactc tgggttcctg ttttctcagt cttttttgcg gctttgctgt ggttggcagc
                                                                       1440
tgccgtactc caggcttgtg tcggccactc agatgagggc tgtggtgcga gccagtgcag
                                                                       1500
gagagetgeg ettgggattg tgeeetetee tgtgtetgte etceggaeet acceaggtet
ccaccatcag gaccctgtct ttgggtttag aagaccaagt atggggaaaa ccaggcacca
                                                                       1560
                                                                       1620
gcctctgcag caatgggtcc ctctagcctg tggacaccag ctgggggatc cagggtcagg
                                                                       1680
cccctcctc tccccagttt ccctctgctg tgggttctgg gctgtcatgt ctccaccact
                                                                       1740
taaggatgtc tttacactga cttcaggata gatgctggga tgcctgggca tggccacatg .
ttacatgtac agaactttgt ctacagcaca aattaagtta tataaacaca gtgactggta
                                                                       1800
tttaatgctg atctactata aggtattcta tatttatatg acttcagaga cgcgtatgta
                                                                       1860
ataaaggacg ccctccctcc agtgtccaca tccagttcac cccagagggt cgggcaggtt
                                                                       1920
gacatattta tttttgtcta ttctgtaggc ttccatgtcc agaatcctgc ttaaggtttt
                                                                       1980
                                                                       2040
agggtacctt cagtactttt tgcaataaaa gtatttccta tccaaaaaaa aaaaaaaaa
actcgagggg gggcccggta cccaattcgc ccctataaag agtc
                                                                       2084
<210> 12
<211> 1586
<212> DNA
<213> Homo sapiens
<400> 12
aattcggcac caggagaagt ggagtttgga agttcagggg cacaggggca caggcccacg
                                                                         60
actgcagcgg gatggaccag tactgcatcc tgggccgcat cggggagggc gcccamggca
                                                                        120
tegtetteaa ggeeaageae gtggagaetg gegagatagt tgeeeteaag aaggtggeee
                                                                        180
taaggcggtt ggaagacggc ttccctaacc aggccctgcg ggagattaag gctctgcagg
                                                                        240
aratggagga caatcagtat gtggtacaac tgaaggctgt gttcccacac ggtggaggct
                                                                        300
ttgtgctggc ctttgagttc atgctgtcgg atctggccga ggtggtgcgc catgcccaga
                                                                        360
ggccactagc ccaggcacag gtcaagagct acctgcagat gctgctcaag ggtgtcgcct
                                                                        420
tctgccatgc caacaacatt gtacatcggg acctgaaacc tgccaacctg ctcatcagcg
                                                                        480
cctcaggcca gctcaagata gcggactttg gcctggctcg agtcttttcc ccagacggca
                                                                        540
```

					•			
gc	cgcctcta:	cacacaccag	gtggccacca	ggagctcact	gagctgccgg	actacaacaa	600	
				cctggaggak				
				tctctaccct				
			_		_	atccatctga		
				tgcccccaag			1 . 1	
				tgaggartcg				
				tggccctggt				
		_				aggcctcccc		
				cccttagcc				
						aggagattca		
						actcatttag		
				gatggctcca				
						gtgagccaga		
				cctggaatta				
			_	tattataatt				
				aagaggaaat				
				aataaagagt	atgattgtgg	ttcaaggala		
aa	ıaaaaaaaa	aaaaaaaaa	actcga				1586	
. FIET II.	•							
	210> 13							
spine to	211> 689			•	•			
<u></u>	212> DNA	•						
<u> </u>	213 > Homo	sapiens						
F31 <4	100> 13		•					
at at	ggaagcta	agtttggcct	gctttgcttt	ttagtctcca	caccatgggc	agaactgctg	60	
IL			•	ttcccaggca			120	
			-	cacttactcc	_			•
.27771 W.			_	acagccctga		_		
		_		gttcttactt	_	_		
				aataaacatt				
				gtcctgttct		•		
11		_	_	ccagtgatgt				
				ttcctacctt				•
librari ba			_	tgctttatct				
_	_		_	catttttata				
	-	taaaaaaaaa		,	gggcaccgca	aataaaaacu	689	
aa	regeatate	Laaaaaaaaa	ddddaaaaa	,			909	
			•					
<2	210> 14							
	210> 14			•				
	212> DNA			*				
< 4	213> Homo	sapiens						
	220>							
	221> SITE	٠						
	222> (45)	_			•			
<2	123> n equ	uals a,t,g,	or c					
<4	400> 14	~					•	
ac	gaagacac	cagaccctgt	ggagcctgtg	gtgaccaccg	aaggncagtt	cgggtgcagc	60	
ag	jggctcgag	cccagaaaac	tatcctctaa	gaccagacgt	gacaaggaga	agcagagctg	120	
ta	agagctgt	ggtgagacct	tcaactccat	caccaagagg	aggcatcact	gcaagctgtg	180	
tg	gggcggtc	atctgtggga	agtgctccga	gttcaaggcc	gagaacagcc	ggcagagcct	240	
	· ·	•						
				_			360	
	 -	JJ J 1 12			,	- -		
			•					
gt ac	tctgcagag ctgcagacc	attgtttcct cccagcccag	gacacageca cetgetetge	gtggcccctg ggccccctgc atgtcagatc	agagcacaga ggctgtyaga	gaagacaccc gagcggtgag	300 360	

•

		•				
gkaggcagcc aggacggcc	a actaceccae	accatecete	tccccaqctq	caaactgagt	480	
gtgccggacc ctgaggaga					540	
					600	
cagtcctggt acctgage					660	
agcactgctg cccatgggg						
cctatgggcg cagtgctco					720	•
acctgtgctg tcctgggag					780	
gagggtgggc caacagcc	a gagytcagga	catttggctt	tggggggaag	gaaaytgagg	840	
cccagagagg ggcaaccay	t ggccaagggt	cacccagcaa	gttttggyta	agagcctggc	900	•
ctccagcccc agcagtktg	g cccagagcag	gggccgaytg	ccaaagtaac	catcatccat	960	
atgggccgtg tggtgatgd					1020	
gacagccaca tcctgctgg					1080	
accgtgtgag ctgaatcgt					1140	
ctgcctgcag cccccagga					1200	
taaccacgct cagaagcto					1260	
					1320	
atttgtggct gttcctgat		acagegeeea	cccgcacaaa	taaacactgg		
scaccaaaaa aaaaaaaa	a aaaaaaac				1348	
					,	
<210> 15						
<211> 1123	-					
<212> DNA						
<213> Homo sapiens						
_						•
<400> 15						
cgcgcccagc ccctgctgc	t ctqqqcaqac	gatgctgaag	atgctctcct	ttaagctgct	60	
gctgctggcc gtggctctg					120	
agggagcgga gcaaggag					180	
					240	
gagagacagg aggatgatg					300	
tggcttctac cctcggctg						
ggagaataag atattttc					360	
caaatgtgca ctttgctc					420	
cttggaaaga gacctagta					480	
cacttgccga ggccatat					540	
ctatgcaaga aaagatgg	g ggttgtgctt:	tccagatttt	ccaagaaaac	aagtcagagg	600	
accagcatct aactactt	g accagatgga	agaatatgac	aaagtggaag	agatcagcag	660	
aaagcacaaa cacaactg	t tctgtattca	ggaggttgtg	agtgggctgc	ggcagcccgt	720	
tggtgccctg catagtgg					780	
tgtgaagata cttacccc					840	
acttgttcaa agtggaat					900	
cgttaatttt attttagt					960	
gaatettgea ggagaaaa					1020	
		~-~~ _ ~~~~~		Caccean	1020	
addacadtda cattaaat						
aggacagtga cattaaat	t ctgttatttg	ttaaaaaaaa	aaaaaaaaa		1080	
aggacagtga cattaaat aaaaaaaaaa aaaaaaaa	t ctgttatttg	ttaaaaaaaa	aaaaaaaaa			
	t ctgttatttg	ttaaaaaaaa	aaaaaaaaa		1080	
aaaaaaaaa aaaaaaaa	t ctgttatttg	ttaaaaaaaa aaaaaaaaaa	aaaaaaaaa aaa		1080	
<210> 16	t ctgttatttg	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<210> 16 211 890	t ctgttatttg aa aaaaaaaaa	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<pre>aaaaaaaaaa aaaaaaaaa <210> 16 <211> 890 <212> DNA</pre>	t ctgttatttg aa aaaaaaaaa	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<pre>aaaaaaaaaa aaaaaaaaa <210> 16 <211> 890</pre>	t ctgttatttg aa aaaaaaaaa	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<pre>aaaaaaaaaa aaaaaaaaa <210> 16 <211> 890 <212> DNA</pre>	t ctgttatttg aa aaaaaaaaa	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<pre>aaaaaaaaaa aaaaaaaaa <210> 16 <211> 890 <212> DNA</pre>	t ctgttatttg aa aaaaaaaaa	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16</pre>	t ctgttatttg	ttaaaaaaaa aaaaaaaaa	aaaaaaaaaaaaaaa	aaaaaaaaa	1080	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16 ttttaattga tctgtgar</pre>	t ctgttatttg aa aaaaaaaaa aa aacttaagaa	ttaaaaaaaa aaaaaaaaa aatcacaatt	aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	gcaattgtgt	1080	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16 ttttaattga tctgtgardcccaaagatg aagatact</pre>	t ctgttatttg aa aaaaaaaaaaaaaaaaaaaaaaaaaaa	ttaaaaaaaa aaaaaaaaa aatcacaatt ggtgcagatc	aaaaaaaaa aaa tcagctaaca cagaactggg	gcaattgtgt	1080 1123 60 120	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16 ttttaattga tctgtgar cccaaagatg aagatact tccctactgt gccatgtc</pre>	a aacttaagaa aacttaagaa ggggcatttg	aatcacaatt ggtgcagatc gaagggactg	tcagctaaca cagaactggg	gcaattgtgt ctggatgaca ccctcatcaa	1080 1123 60 120 180	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16 ttttaattga tctgtgar cccaaagatg aagatact tccctactgt gccatgtc aggaaacagc agtctttg</pre>	a aacttaagaa at aacctcaaat ct ggggcatttg	aatcacaatt ggtgcagatc gaagggactg ggttgtgccc	tcagctaaca cagaactggg gacctctttc aagggctaca	gcaattgtgt ctggatgaca ccctcatcaa gtagctctga	1080 1123 60 120 180 240	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16 ttttaattga tctgtgar cccaaagatg aagatact tccctactgt gccatgtc aggaaacagc agtctttg aataacaaga gctctgta</pre>	a aacttaagaa aacttaagaa aacttaagaa taacctcaaat ggggcatttg	aatcacaatt ggtgcagatc gaagggactg ggttgtgccc aatagctctg	tcagctaaca cagaactggg gacctctttc aagggctaca aaataacagt	gcaattgtgt ctggatgaca ccctcatcaa gtagctctga cctaagaact	1080 1123 60 120 180 240 300	
<pre><210> 16 <211> 890 <212> DNA <213> Homo sapiens <400> 16 ttttaattga tctgtgar cccaaagatg aagatact tccctactgt gccatgtc aggaaacagc agtctttg</pre>	a aacttaagaa acttaagaa acttaagaa taacctcaaat ggggcatttg	aatcacaatt ggtgcagatc gaagggactg ggttgtgccc aatagctctg cagcttttc	tcagctaaca cagaactggg gacctctttc aagggctaca aaataacagt tcttcctgag	gcaattgtgt ctggatgaca ccctcatcaa gtagctctga cctaagaact aaacagtgtg	1080 1123 60 120 180 240 300	

•

tatagggtag	actacettt	cccatagata	ttcattccca	atggaaagtt	câctctcctt	480
		cccatgggtc tcagttgttc				540
		gacttgggat				600
ttgtgatggt						660
		attgatttta				720
		aactacaaac				780
		tgtcctattg				840
	_	aaagcaaaaa				890
aaaaagaaca	aadagddda	adagoddada				
<210> 17						
<211> 619						
<212> DNA						
<213> Homo	sapiens					
				•		
<400> 17						
tcaggccccg	ctgactccgc.	cccgcaacac	tctcactcgc	ccttcgtgtc	ccatcaggtc	60
ccgctgactc	cgccccgcaa	tactctcact	cgcccttygt	gtcccatcag	gtcccgctga	120
ctccgccccg	caacactctc	acttgccctt	cgtgtcccat	caggtcctgc	tgactccatc	180
tcctcagcgt	ctccaacatg	tcccttcctt	gccacctctt	gcctggatta	ctacagcagc	240
ttctaacgag	tctccctgcc	tttcagttct	ccgcaccgct	tcaagtgttc	agtctggatg	300
gtctgtcact	cccagcgcca	aaactgctga	cggcttccct	ttgccttcag	gacgaagtcc	360
		taggaccttt				420
		aaatgagcca				480
		gaggatcacc				540
		tccagcctgg	gccacagagt	gagaccctgt	ctcaaaaaaa	600
aaaaaaaaa	aaaactcga					619
<210> 18						
<211> 1768	-					•
<211> 1766 <212> DNA						
<213> Homo	saniens	•		•		
1227 1101110						
<220>		•				
<221> SITE						
<222> (483))			•		
<223> n equ	uals a,t,g,	or c	•			
<400> 18						
		aatgttgcct				60
cagcacttga	atgcttagct	ccatcccata	gttctctaca	ttaacatgct	gtctctaagg	120
		ttcagatggt				180
		aaggctgata				240
		ggggmcaccc				300
					tttgtccatc	360
					aaaactccat	420
					agactggccc	480
		tgagctcttg				540 600
		cagggttatt				600 660
					gaccgtagta	660 720
		cagggtcggt			_	780
		tggtgggagg				840
					ccaggcagaa tgcaagacaa	900
		_			caaactgacc	960
					cacaagcgtg	1020
					aggactatgg	1080
33						

.

```
aagctgttca agatacattt gatcttcaga aaagcagaat ttggttcaac tgttgacaga
                                                                     1140
ggacacaaat acgttgttcc agagctcagc cttctcactc taaaagaaag atattttct
                                                                     1200
                                                                     1260
atttattttc tacatctggc cagtggctct ggtgctagat gccactgtag ccagatctcc
aacagtgcct tggaccatgg actcatactc aactgagtaa gaaggggctg gtgccagtcg
                                                                     1320
                                                                     1380
gggtggctga gctggtcctt aataggttgt ttcttggtct tgctttcttc atgccctccc
                                                                     1440
cactgctcct gccaccttta gataagtttc tctagctaat tttgtggcca atgtaaaatt
cgtcatcaac ctaacaaca caaccttctc agcagcattt ctcccctgtg atggaaataa
                                                                     1500
agtgtttagg gcagtgggag gagaaattc yyccaggtga atggggaagg gtctgttcca
                                                                     1560
                                                                     1620
gcctctccct actcccatcc catttccacc aactggggaa ctgtgactat ctatctcccc
                                                                     1680
cgacttctac cagggatgcc ttcagccaag gctgttctca ccagctgcct cagatgacaa
atgaggctaa tggacataat ctacagtgtc ctttttcact tgcacctttt ttataagaat
                                                                     1740
                                                                     1768
atattgtaat actaaaaaat attaaatt
<210> 19
<211> 1699
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (871)
<223> n equals a,t,g, or c
<400> 19
ctcgtgccga attcggcacg agcgaaaaga tggcggtctt ggcacctcta attgctctcg
                                                                       60
tgtattcggt gccgcgactt tcacgatggc tcgcccaacc ttactacctt ctgtcggccc
                                                                      120
                                                                      180
tgctctctgc tgccttccta ctcgtgagga aactgccgcc gctctgccac ggtctgccca
cccaacgcga agacggtaac ccgtgtgact ttgactggag agaagtggag atcctgatgt
                                                                      240
                                                                      300
ttctcagtgc cattgtgatg atgaagaacc gcagatccat cactgtggag caacatatag
                                                                      360
gcaacatttt catgtttagt aaagtggcca acacaattct tttcttccgc ttggatattc
gcatgggcct actttacatc acactctgca tagtgttcct gatgacgtgc aaaccccccc
                                                                      420
tatatatggg ccctgagtat atcaagtact tcaatgataa aaccattgat gaggaactag
                                                                      480
                                                                      540
aacgggacaa gagggtcact tggattgtgg agttctttgc caattggtct aatgactgcc
aatcatttgc ccctatctat gctgacctct cccttaaata caactgtaca gggctaaatt
                                                                      600
                                                                      660
ttgggaaggt ggatgttgga cgctatactg atgttagtac gcggtacaaa gtgagcacat
                                                                      720
cacccctcac caagcaactc cctaccctga tcctgttcca aggtggcaag gaggcaatgc
ggcggccaca gattgacaag aaaggacggg ctgtctcatg gaccttctct gaggagaatg
                                                                      780
tgatccgaga atttaactta aatgagctat accagcgggc caagaaacta tcaaaggctg
                                                                      840
gagacaatat ccctgaggag cagcctgtgg nttcaacccc caccacagtg tcagatgggg
                                                                      900
aaaacaagaa ggataaataa gatcctcact ttggcagtgc ttcctctcct gtcaattcca
                                                                      960
ggctctttcc ataaccacaa gcctgaggct gcagcctttt atttatgttt tccctttggc
                                                                     1020
                                                                     1080
tgtgactggg tggggcagca tgcagcttct gattttaaag aggcatctag ggaattgtca
ggcaccctac aggaaggcct gccatgctgt ggccaactgt ttcactggag caagaaagag
                                                                     1140
atctcatagg acggagggg aaatggtttc cctccaagct tgggtyagtg tgttaactgc
                                                                     1200
ttatcagcta ttcagacatc tccatggttt ctccatgaaa ctctgtggtt tcatcattcc
                                                                      1260
ttcttagttg acctgcacag cttggttaga cctagattta accctaaggt aagatgctgg
                                                                     1320
ggtatagaac gctaagaatt ttcccccaag gactcttgct tccttaagcc cttctggctt
                                                                     1380
cgtttatggt cttcattaaa agtataagcc taactttgtc gctagtccta aggagaaacc
                                                                      1440
tttaaccaca aagtttttat cattgaagac aatattgaac aaccccctat tttgtgggga
                                                                      1500
ttgagaaggg gtgaatagag gcttgagact ttcctttgtg tggtaggact tggaggagaa
                                                                      1560
atcccctgga ctttcactaa ccctctgaca tactccccac acccagttga tggctttccg
                                                                      1620
1680
                                                                      1699
aaaaaaaaa aaaaaaaag
```

```
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (701)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (728)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (733)
<223> n equals a,t,g, or c
<400> 20
aagtgagtta aggacgtact cgtcttggtg agagcgtgac tgctgagatt tgggagtctg
                                                                         60
cgctaggccc gcttggagtt ctgagccgat ggaagagttc actcatgttt gcacccgcgg
                                                                        120
tgatgcgtgc ttttcgcaag aacaagactc tcggctatgg agtccccatg ttgttgctga
                                                                        180
ttgttggagg ttcttttggt cttcgtgagt tttctcaaat ccgatatgat gctgtgaaga
                                                                        240
gtaaaatgga tcctgagctt gaaaaaaac tgaaagagaa taaaatatct ttagagtcgg
                                                                        300
aatatgagaa aatcaaagac tccaagtttg atgactggaa gaatattcga ggacccaggc
                                                                        360
cttgggaaga tcctgacctc ctccaaggaa gaaatccaga aagccttaag actaagacaa
                                                                        420
cttgactctg ctgattcttt tttccttttt ttttttttta aataaaaata ctattaactg
                                                                        480
gacttcctaa tatatacttc tatcaagtgg aaaggaaatt ccaggcccat ggaaacttgg
                                                                        540
atatgggtaa tttgatgaca aataatcttc actaaaggtc atgtacaggt ttttatactt
                                                                        600
cccagctatt ccatctgtgg atgaaagtaa caatgttggc cacgtatatt ttacacctcg
                                                                        660
aaataaaaaa tgtgaatact gctccaaaaa aaaaaaaagt nggcgagctt tccctagggg
                                                                        720
                                                                        736
ggtaattngc tgntgc
<210> 21
<211> 1688
<212> DNA
<213> Homo sapiens
<400> 21
caaagaaggg attcatcttg cattggtgga gctgctgaaa aatttaacca agtaccctac
                                                                         60
tgatagggac tccatatgga agtgcttgaa gtttctggga agtcggcatc caaccctggt
                                                                         120
gcttcccttg gtgccagagc ttctgagcac ccacccattt tttgacacag ctgaaccaga,
                                                                         180
catggatgat ccagcttata ttgcagtttt ggtacttatt ttcaatgctg ctaaaacctg
                                                                         240
tccaacaatg ccagcattgt tctcagatca caccttcagg cactatgcct acctccgaga
                                                                         300
cagtctttct catcttgttc ctgccttgag gttaccaggt agaaaactgg tgtcatcagc
                                                                         360
tgtttctccc agcatcatac ctcaagagga tccttcccag cagttcctgc agcagagcct
                                                                         420
tgaaagagtg tatagtette ageaettgga ceetcaggga geecaggage tgetggaatt
                                                                         480
caccatcagg gatctgcaaa gacttggaga acttcaatct gaattggcag gagtagctga
                                                                         540
tttctctgcc acctatcttc gctgtcaact acttctcatc aaggccttgc aggaaaagtt
                                                                         600
gtggaatgta gctgcccctt tgtatttgaa gcagagtgat ttggcctcag cagcagcgaa
                                                                         660
acagattatg gaagagacct acaaaatgga attcatgtac agtggtgtgg agaataagca
                                                                         720
ggtggtgatt atacatcaca tgaggctgca ggccaaagct ttgcaactta tagtaacagc
                                                                         780
acgaactaca cgaggacttg accccttatt tgggatgtgt gaaaaatttt tacaggaagt
                                                                         840
agactttttt cagaggtatt tcatcgctga tttgccccac ttgcaggaca gctttgtgga
                                                                         900
caaactcctt gaccttatgc cccgactcat gacatccaaa cctgcagaag tggtcaaaat
                                                                         960
tctacagacc atgctgcgac agagtgcctt tctgcatctc ccgcttccag agcagatcca
                                                                        1020
caaagcctca gccaccatca tcgagccagc gggcgagttc agacaaccct ttgcggttta
                                                                        1080
```

```
cctctgggtt ggtggttgcc ctgggatgtt gatgcaaccc tggagcatgt gcaggatcct
                                                                       1140
                                                                       1200
cagaacactg ttaaggtcca gggtcttata tccagatggc caggsttcag atgattcacc
ccaagectge agaetteegg aateetggee cagggeggea eeggeteate aeteaggttt
                                                                       1260
                                                                       1320
atctctccca caccgcttgg acagaggcat gccaggtgga agtgaggctg ctgctggcct
                                                                       1380
acaactccag tgctcgcatt ccaaaatgcc cctggatgga gggtggtgag atgtcaccac
aggtggaaac cagcatcgag ggcaccattc ccttcagcaa gcctgtaaaa gtttatataa
                                                                       1440
                                                                       1500
tgcccaaacc tgcacggcgc taaggcaaaa acagtcttcc caaccgtgcc tagagggccc
ttcttaggtg tcagaatgag ccaagcctga agcacttcac ctggaattga tgtgtaggct
                                                                       1560
                                                                       1620
taaggagtat gtgaccctta cagtctcatc tggtatcaaa cacaggataa attgtttctt
cattaaaaaa taaaaaacct tcaagtctac ttacccttct cctgtccaca ataaagttga
                                                                       1680
                                                                       1688
gaaaacac
<210> 22
<211> 2045
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2040)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2041)
<223> n equals a,t,g, or c
<400> 22
gagetetegg ggtategagg aggeaggee gegggegeae gggegagegg geegggagee
                                                                         60
ggagcggcgg aggagccggc agcagcggcg cggcgrgctc caggcgaggc ggtcgacgct
                                                                        120
cctgaaaact tgcgcgcgcg ctcgcccact gcgcccggag cgatgaagat ggtcgcgccc
                                                                        180
tggacgcggt tctactccaa cagctgctgc ttgtgctgcc atgtccgcac cggcaccatc
                                                                        240
                                                                        300
ctgctcggcg tctggtatct gatcatcaat gctgtggtac tgttgatttt attgagtgcc
                                                                        360
ctggctgatc cggatcagta taacttttca agttctgaac tgggaggtga ctttgagttc
atggatgatg ccaacatgtg cattgccatt gcgatttctc ttctcatgat cctgatatgt
                                                                        420
gctatggcta cttacggagc gtacaagcaa cgcgcagctg ggatcatccc attcttctgt
                                                                        480
taccagatet ttgaetttge eetgaacatg ttggttgeaa teaetgtget tatttateea
                                                                        540
aactccattc aggaatacat acggcaactg cctcctaatt ttccctacag agatgatgtc
                                                                        600
                                                                        660
atgtgcagtg aatcctacct gtttggtcct tattattctt ctgtttatta gcattatctt
gacttttaag ggttacttga ttagctgtgt ttggaactgc taccgataca tcaatggtag
                                                                        720
                                                                        780
gaactcctct gatgtcctgg tttatgttac cagcaatgac actacggtgc tgctaccccc
                                                                        840
gtatgatgat gccactgtga atggtgctgc caaggagcca ccgccacctt acgtgtctgc
                                                                        900
ctaagcette aagtgggegg actgagggea geagettgae tttgeagaea tetgageaat
                                                                        960
agttctgtta tttcactttt gccatgagcc tctctgagct tgtttgttgc tgaaatgcta
ctttttaaaa tttagatgtt agattgaaaa ctgtagtttt caacatatgc tttgctrgaa
                                                                       1020
                                                                       1080
cactgtgata gattaactgt agaattcttc ctgtacgatt ggggatataa ygggcttcac
taaccttccc taggcattga aacttccccc aaatctgatg gacctagaag tctgcttttg
                                                                       1140
tacctgctgg gccccaaagt tgggcatttt tctctctgtt ccctctttt tgaaaatgta
                                                                       1200
aaataaaacc aaaaatagac aactttttct tcagccattc cagcatagag aacaaaacct
                                                                       1260
tatggaaaca ggaatgtcaa ttgtgtaatc attgttctaa ttaggtaaat agaagtcctt
                                                                       1320
atgtatgtgt tacaagaatt tcccccacaa catcctttat gactgaagtt caatgacagt
                                                                       1380
                                                                       1440
ttgtgtttgg tggtaaagga ttttctccat ggcctgaatt aagaccatta gaaagcacca
ggccgtggga gcagtgacca tctgctgact gttcttgtgg atcttgtgtc cagggacatg
                                                                       1500
gggtgacatg cctcgtatgt gttagagggt ggaatggatg tgtttggcgc tgcatgggat
                                                                       1560
ctggtgcccc tcttctcctg gattcacatc cccacccagg gcccgctttt actaagtgtt
                                                                       1620
                                                                       1680
ctgccctaga ttggttcaag gaggtcatcc aactgacttt atcaagtgga attgggatat
atttgatata cttctgccta acaacatgga aaagggtttt cttttccctg caagctacat
                                                                       1740
```

	·						
	aaaatgagga tttttatata gctgtaaatt	ttgccttcct ttcatatgtt aagtygtttg	agtatgtcta tgtatgcgct acaaagtcag caattaaaac aaaaaaaa	ttttaccttg caactctcct aaggtttgcc	actacctgaa gttggttcat cacatccaaa	ttgcaaggga tattgaatgt aaaaaaaaaa	1800 1860 1920 1980 2040 2045
	<210> 23 <211> 1101 <212> DNA <213> Homo	sapiens				•	
	ggctgtcacc tgggcgcgat atgaggtcgt acttgggcct ccctccacct ctgccaatgg gccacgtaga gtttcttcca gcggacggca tcagcgacga ggcccgggga acaatgcaga tggtgaatca tggagatttg agaacctcct agctcatcac tgtgctccca	tccgcctctg gatgctgcct gttgccgygg gcacccagag gcggaagaac ctccgaggtg ggggtacccg ggtggggtca cgccgtgtac cagcctgggc ctctctgcca gttccagatg cgtggacaag gaatagtcag gacctggcar gggtgtcgac	ttcccgcgcc ctcccgacc gcgattgccc cgtctgccag agggtgagct agggacctgc acggagcagc gacctgcacc caggctgagc caggctgagc tcccgagaga ctggggagcg ctatatcaga gacaggttcc gcacggcaac ttcamcggga gctgtgaacc a	cggccatgcg ccagccggcc gccccgagt acgtccttgg tgggytccgg ctcgcgggca ccagcctcag tgatcgagcc acctgctgca gaccccggac cccgctacgt aagcagccgt aactcaactt acgtcagcc ggacacggcg ctactgtggg	cggcctcggg ctgggccctc ccgccgagct ggccacaggg ctacacagag ggaccactgc cacctgtgcc cacctgtgcc cctggatgaa gacggccggg ggcagccgtc ggagctgtat gcgtcatcgg ccgtgtggtc cgaccccagt gcacctgcat gtttgccagg	ctctggctgc atggagcagt ctgcctccc cacaacttca acctatacgg ttytaccagg ggcctcaggg ggtggcgagg acctgcgggg ttcaggcctc gtggtcgtgg gtgctggagg ctggtggagg gtgctggagg gtgctggagg gtgctggagg gtgctggagg gtgctggagg gtgctggagg gtgctggagg ctggtggcc gtgtcacactgg	60 120 180 240 300 360 420 480 540 600 720 780 840 900 960 1020 1080 1101
	<210> 24 <211> 1659 <212> DNA <213> Homo	sapiens					
•	acagggatta ttcctggcag atgtagagga gaggggaggg	tcctcctct agattcactt gcattctttc acctggacat atcacagttg accacctatg acctcatatg tcctccatct atcccatct atcccatgca gtcccgttct aacacaagta ggatacgcca gggcagagag aaatattttg gaacaggaga	cccttaaga ccctttgatt agctatggag gatttcaggg gacttcaggg gactataggg gacttcaggg gatttaggg gatttaggg gatttagga gatttagga cattcagatt atgggatctt gattacattc gaagaatcca	gtcatgctca tccaggggca ctagagacgg ggggagattt gtagggacat gtggagatgg acagggatgc gccggggcac gaagggattt atagagatgt gccgaggttc tcagaggtag gtatggaatt agccctctac cacatgacca	agagagacac ttcggggcct accgcatggt ttcgtcttct acattctggg tacttctatg tcacgctgtt ttatgattta atcagatttg atctgatttg aggtactact acaccgatct taaagataga acaagataga tacgatagaa	cccgggtgga tctggcaact ccttttgcaa gactatcgag gatttcagag gattttagag gattttagag gattttagag gattttagag gattttagag gattttagag gatttagag gattttagag	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020

```
tagcetttga acatgagtet ecageagaet tteagaaeag ecaaagteea gtteaagaee
                                                                       1080
aagataagtc acagctttct ggacgtgaag agcagagttc agatgctggt ctgtttaaag
                                                                       1140
                                                                       1200
aagaaggcgg totggacttt ottgggcggc aagacaccga ttacagaagc atggagtacc
gtgatgtgga tcataggctg ccaggaagcc agatgtttgg ctatggccag agcaagtctt
                                                                       1260
ttccagaggg caaaactgcc cgagatgccc aacgggacct tcaggatcaa gattatagga
                                                                       1320
ccggcccaag tgaggagaaa cccagcaggc ttattcgatt aagtggggta cctgaagatg
                                                                       1380
                                                                       1440
ccacaaaaga agagattett aatgetttte, ggaeteetga tggeatgeet gtaaagaatt
gcagttgaag gagtataaca caggttacga ctatggctat gtctgcgtgg agttttcact
                                                                       1500
                                                                       1560
cttggaagat gccatcggat gcatggaggc caaccaggct ggtgattagt aactaaagca
tatgctgtgg aacatccagc actgatgcca gattacctgt ccctaatact gagcagaagc
                                                                       1620
                                                                       1659
tggtgaatga aacaggagat ccctcagtca aaacaaaaa
<210> 25
<211> 1329
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (520)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1140)
<223> n equals a,t,g, or c
<400> 25
tetgtteete teteetggaa gettgeagae eteeetteag aaccaateee aagaageeae
                                                                         60
ctatccggaa caacacaagg atgctgccgg actggaagag stccttgatc ctcatggctt
                                                                        120
acatcatcat cttcctcact ggcctccctg ccaacctcct ggccctgcgg gcctttgtgg
                                                                        180
ggcggatccg ccagcccag cctgcacctg tgcacatcct cctgctgagc ctgacgctgg
                                                                        240
ccgacctcct cctgctgctg ctgctgcct tcaagatcat cgaggctgcg tcgaacttcc
                                                                        300
gctggtacct gcccaaggtc gtctgcgccc tcacgagttt tggsttctac agcagcatct
                                                                        360
actgcagcac gtggctcctg gcgggcatca gcatcgagcg ctacctggga gtggctttcc
                                                                        420
ccgtgcagta caagetetee cgccggcete tgtatggagt gattgcaget ctggtggcet
                                                                        480
gggttatgtc ctttggtcac tgcaccatcg tgatcatcgn tcaatacttg aacacgactg
                                                                        540
agcaggtcag aagtggcaat gaaattacct gctacgagaa cttcaccgat aaccagttgg
                                                                        600
acgtggtgct gcccgtgmgg stggagctgt gcctggtgct cttcttcats cccatggcag
                                                                        660
tcaccatctt ctgctactgg cgttttgtgt ggatcatgct ctcccagccc cttgtggggg
                                                                        720
cccagaggcg gcgccgagcc gtggggctgg ctgtggtgac gctgctcaat ttcctggtgt
                                                                        780
gcttcggacc ttacaacgtg tcccacctgg tggggtatca ccagagaaaa agcccctggt
                                                                        840
                                                                        900
ggcggtcaat agccgtgktg ttcagttcac tcaacgccag tctggacccc ctgctcttct
atttctcttc ttcagtggtg cgcagggcat ttgggagagg gctgcaggtg ctgcggaatc
                                                                        960
                                                                       1020
agggeteete eetgttggga egeagaggea aagacacage agaggggaca aatgaggaca
ggggtgtggg tcaaggagaa gggatgccaa gttcggactt cactacagag tagcagtttc
                                                                       1080
cctggacctt cagaggtcgc ctgggttaca caggagctgg gaagcctggg agaggcggan
                                                                       1140
caggaagget eccatecaga tteagaaate ettagaeeea geeeaggaet gegaetttga
                                                                       1200
aaaaaatgcc tttcaccagc ttggtatccc ttcctgactg aattgtccta ctcaaaggag .
                                                                       1260
cataagtcag agatgcacga agaagtagtt aggtatagaa gcacctgccg ggtgtggtgg
                                                                       1320
                                                                       1329
ctcatgcct
```

```
<210> 26 <211> 700
```

<212> DNA

<213> Homo sapiens

```
<220>
<221> SITE
<222> (81)
<223> n equals a,t,g, or c
<220>
<221> SITE
·<222> (659)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (692)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (700)
<223> n equals a,t,g, or c
<400> 26
ggcagagagc accatctgtc atggcggctg ggctgtttgg tttgagcgct cgccgtcttt
                                                                      60
                                                                     120
tggcggcagc ggcgacgcga ngggctcccg gccgcccgcg tccgctggga atctagcttc
tccaggactg tggtcgccc gtccgctgtg gcggraaagc ggcccccaga accgaccaca
                                                                     180
ccgtggcaag aggacccaga acccgaggac gaaaacttgt atgagaagaa cccagactcc
                                                                     240
catggttatg acaaggaccc cgttttggac gtctggaaca tgcgacttgt cttctttt
                                                                     300
ggcgtctcca tcatcctggt ccttggcagc acctttgtgg cctatctgcc tgactacagg
                                                                      360
tgcacagggt gtccaagagc gtgggatggg atgaaagagt ggtcccgccg cgaagctgag
                                                                     420
aggettgtga aatacegaga ggecaatgge etteceatea tggaateeaa etgettegae
                                                                     480
cccagcaaga tccagctgcc agaggatgag tgaccagttg ctaagtgggg ctcaagaagc
                                                                      540
accgccttcc ccacccctg cctgccattc tgacctcttc tcagagcacc taattaaagg
                                                                     600
                                                                     660
700
aaaaaaaaa aaaaaaaaa aaaaaaaaa anggggggn
 <210> 27
<211> 832
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (821)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (825)
<223> n equals a,t,g, or c
<400> 27
ggcacgagct ccactcggtt tctctctttg caggagcacc ggcagcacca gtgtgtgagg
                                                                       60
ggagcaggca gcggtcctag ccagttcctt gatcctgcca gaccacccag cccctggcac
                                                                      120
agagetgete caeaggeace atgaggatea tgetgetatt caeagceate etggeettea
                                                                      180
gcctagctca gagctttggg gctgtctgta aggagccaca ggaggaggtg gttcctggcg
                                                                      240
ggggccgcag caagagggat ccagatctct accagctgct ccagagactc ttcaaaagcc
                                                                      300
                                                                      360
actcatctct ggagggattg ctcaaagccc tgagccaggc tagcacagat cctaaggaat
```

```
caacatctcc cgagaaacgt gacatgcatg acttctttgt gggacttatg ggcaagagga
                                                                        420
gcgtccagcc agactctcct acggatgtga atcaagagaa cgtccccagc tttggcatcc
                                                                        480
tcaagtatcc cccgagagca gaataggtac tccacttccg gactcctgga ctgcattagg
                                                                        540
aagacetett teeetgteee aateeeeagg tgegeaeget eetgttaeee tttetetee
                                                                        600
ctgttcttgt aacattcttg tgctttgact ccttctccat cttttctacc tgaccctggt
                                                                        660
gtggaaactg catagtgaat atccccaacc ccaatgggca ttgactgtag aataccctag
                                                                        720
                                                                        780
agttcctgta gtgtcctaca ttaaaaatat aatgtctctc tctattcctc aacaataaag
                                                                        832
gatttttgca tatgaaaaaa aaaaaaaaaa aaaaaaaaa naaanaaaaa aa
<210> 28
<211> 2361
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2361)
<223> n equals a,t,g, or c
<400> 28
ggcacgaggc tccctaagcg gttgtcaccg ctggagacgg ttgggagaac cgttgtggcg
                                                                         60
agcgctacac gaggcaaacg acttctccct tctttgaact ggaccccgcg agcaccagag
                                                                        120
tcggcgtaac tatcgcctga caggcattta aatcaaacgg tattgagatg gattgggtta
                                                                        180
tgaaacataa tggtccaaat gacgctatga tgggacagta cgacttcgtg gactaccatt
                                                                        240
                                                                        300
tggttgcagc aaagaggaaa tagttcagtt ctttcaaggg ttggaaatcg tgccaatggg
                                                                        360
ataacattga cgatggacta ccaggggaga agcacagggg aggccttcgt gcagtttgct
                                                                        420
tcaaaggaga tagcagaaaa tgctctgggg aaacacaagg aaagaatagg gcacaggtat
                                                                        480
attgagatct tcagaagtag caggagtgaa atcaaaggat tttatgatcc accaagaaga
ttgctgggac agcgaccggg accatatgat agaccaatag gaggaagagg gggttattat
                                                                        540
                                                                        600
ggagctgggc gtggaagtat gtatgacaga atgcgacgag gaggtgatgg atatgatggt
                                                                        660
ggttatggag gttttgatga ctatggtggc tataataatt acggctatgg gaatgatggc
                                                                        720
tttgatgaca gaatgagaga tggaagaggt atgggaggac atggctatgg tggagctggt
                                                                        780
gatgcaagtt caggttttca tggtggtcat ttcgtacata tgagagggtt gccttttcgt
gcaactgaaa atgacattgc taatttcttc tcaccactaa atccaatacg agttcatatt
                                                                        840
gatattggag ctgatggcag agcacaggag aagcagatgt agagtttgtg acacatgaag
                                                                        900
                                                                        960
atgcagtage tgccatgtet aaagataaaa ataacatgca acategatat attgaactet
tettgaatte taeteetgga ggeggetetg geatgggagg ttetggaatg ggaggetacg
                                                                       1020
gaagagatgg aatggataat cagggaggct atggatcagt tggaagaatg ggaatgggga
                                                                       1080
acaattacag tggaggatat ggtactcctg atggtttggg tggttatggc cgtggtggtg
                                                                       1140
gaggcagtgg aggttactat gggcaaggcg gcatgagtgg aggtggatgg cgtgggatgt
                                                                       1200
                                                                       1260
actgaaagca aaaacaccaa catacaagtc ttgacaacag catctggtct actagacttt
                                                                       1320
cttacagatt taatttcttt tgtattttaa gaactttata atgactgaag gaatgtgttt
                                                                       1380
tcaaaatatt atttggtaaa gcaacagatt gtgatgggaa aatgttttct gtaggtttat
ttgttgcata ctttgactta aaaataaatt tttatattca aaccactgat gttgatactt
                                                                       1440
                                                                       1500
tttatatact agttactcct aaagatgtgc tgccttcata agatttgggt tgatgtattt
tactattagt tctacaagaa gtagtgtggt gtaattttag aggataatgg ttcacctctg
                                                                       1560
                                                                      · 1620
cgtaaactgc aagtcttaag cagacatctg gaatagagct tgacaaataa ttagtgtaac
tttttttttt agttcctcct ggacaacact gtaaatataa agcctaaaga tgaagtggct
                                                                       1680
tcaggagtat aaattcagct aattattct atattattat ttttcaaatg tcatttatca
                                                                       1740
                                                                       1800
ggcatagctc tgaaacattg atgatctaag aggtattgat ttctgaatat tcataattgt
                                                                       1860
gttacctggg tatgagagtg ttggaagctg aattctagcc ctagattttg gagtaaaacc
ccttcagcac ttgaccgaaa taccaaaaat gtctccaaaa aattgatagt tgcaggttat
                                                                       1920
cgcaagatgt cttagagtag ggttaaggtt ctcagtgaca caagaattca gtattaagta
                                                                       1980
cataggtatt tactatggag tataattctc acaattgtat tttcagtttt ctgcccaata
                                                                       2040
gagtttaaat aactgtataa atgatgactt taaaaaaatg taagcaacaa gtccatgtca
                                                                       2100
tagtcaataa aaacaatcct gcagttgggt tttgtatctg atccctgctt ggagttttag
                                                                       2160
                                                                       2220
tttaaagaat ctatatgtag caaggaaaag gtgcttttta attttaatcc ctttgatcaa
```

tatggctttt	ttccaaattq	gctaatggat	caaaatgaaa	cctattaata	tgaattcagt	2280
		tttgccagaa				2340
	aaaaaaaaaa			5		2361
		4.				
		•	•			
<210> 29		•				
<211> 879				•		
<211> 079						
<213> Homo	saniend			•		
(213) 1101110	sapiens					
<400> 29						
	ccatacacta	ggttctgctc	ctcctgaccc	tecteactea	ctctgcagtg	60
		gactcagccc				120
		gaacaacaac				180
		tcccaaactc				240
		tgcatccagg				300
		ggctgactat				360
		gaccaagctg				420
		ctcctctgag				480
		cccgggagcc			•	540
		gaccaccaca				600
		gacgcctgag				660
						720
		caccgtggag				780
		ccacgggagc				840
		tccagccctt		ccacgaaacc	·	879
ceccacege	Caattayaaa	aaaaaaaaaa	aaaaaaaaa		•	0,75
		•		•		•
<210> 30						
<211> 1732						
<212> DNA						
<213> Homo	sapiens					
	Dapions					
<400> 30	•					
	aaacgtgtat	tgtggtctca	agmmttgccc	cawattaacc	tataccttcc	60
					ctgtcatggg	120
		ttccggcaac				180
					cgctttcctg	240
		gctcttatgg				300
					ggaaagacct	. 360
		cacccaaacc				420
		aagcaagagt				480
		atagacggaa				540
		aaaggctact				600
		ggggagacaa			•	660
					cacttccata	720
					gtgaccagaa	
					cagatgtgtt	
		gagcttgaag				900
		gcaagacaga				960
					aaaactccaa	1020
		tcacgccatg				1080
		tgtggtaaag		•		1140
					taaggcaaag	1200
		gattcatccc				1260
		gcagagagtt				1320
					ttaagtcaaa	1380
					aagaggccaa	1440

gctgcctgta gttagtaga	a aagaatggat	ataattette	ttqtqtattt	atttqtatca	1500
taaacacttg gaacaacaa					1560
taactcatgt aaacaagta					1620
acatgtacct aattatggt					1680
ataaaaaagt taattttga					1732
·					
<210> 31					
<211> 3259					
<212> DNA					
<213> Homo sapiens			•		
<400> 31					
tttgcagtac gggccggat	t tecegggteg	acccacgcgt	ccgcggaggc	tacgtgaaga	60
gaggcgcggc gtgactgag					120
aaccgctgcg atcgcggag					180
acgcagggcg ctgggccgg					240
aaagccttcc acactttct					300
tttgatgatt ttgaggatg					360
tttgaggatg tcatggaag				_	420
gatgatgaag atgagacca					480
tttgaagatg cagataccc	a ggagggagat	actgagagtg	aaccatatga	tgatgaagaa	540 600
tttgaaggtt atgaagaca					660
attgttgatg ttcctgcac					720
atggtgactg gtctgcttg cgccttgcac aggcctggt					780
gtggggatg atggaacta					840
gagcacatct ataacctgt					900
ctgaggttcc tcaagagac					960
agtgatcaag tgcaaataa					1020
gctgttggca cacggaaag					1080
ttttgtagtg ataaaccta					1140
ctgtcagaga tgggagaag					1200
acacactatg ctgacaaga					1260
attatgcaag aggaaggtc					1320
acatttaatg tgcctggct					1380
ctgatgaaca tggtgattt					1440
ggcaaacaaa aagcagata					1500
catgtgcaaa gacaggaag					1560
gagcgaatca tgaatgagg					1620 1680
aggcgtgagc aaaagaagt gcccatgtaa agccatccc					1740
caggaaacat gaaaaacgo					1800
actgagaaat ccttatttc					1860
agatacctgg aaagggcto			•	,	1920
gattatttta taaaaggaa					1980
tataatacaa atcatcagt					2040
ataggtagat aaccagatt					2100
gactgactct aaaccaaga					2160
gatgttttct atttcaggg					2220
ctgataacaa aattaatag					2280
ttctagggac aggagcato				•	2340
atgctgtatt ttaagtggt					2400
atgcttcacc taggtaaga					2460
gttgctgcag cctggtgga					2520 2580
ccgttgcttc tccctctgc					2580 2640
agaaatggcc atgaatatgggggggttctttc cacctcttg					
gagettette tattett	- ggaactaact				

			·			
aggtcattgc gggagtgggg aacaagttgc catgggtttt ttttaacagt ttatataatt agttgatagt	tgttcagatc ttgtaccagg tggtgggtat tgtgaaaacg tctccaagtt tcatgaagtt atagtagtgg cttagttatc gctaattttg acaaaaaaa	taatttttgc tttttgttga catgtgctgc aatacagaaa gttattaaaa ccttgtttta ttttgagtaa	cggggatggg tgctttagtg tgcctttgta tatgtaaact taactaacat caaaccttta gaaaagcttt	taagggttgg caggcctgtt actgccatgg gagagatgca aaaacttaat aattacattt cctaaagtcc	gttttctggt ctgaggcaat aaacttttca aatgtaatat tactttaata tagaaatcaa catacatttg	2760 2820 2880 2940 3000 3060 3120 3180 3240 3259
<210> 32 <211> 454 <212> DNA <213> Homo	sapiens					
atgcttttc attacctcca gttatattaa agcccctgtc tcttaaawta aaggcagagg	cttgtctgcg tctgcttatt tctgcaacca aaaaatcaa tttattcctc tgtcagggtg caggaggaca ttctccacaa	accetecetg gagetgetae ggtgetggga ccetgtetaa etaggeaeag amttgageee	tttcctcctg caccactgtg ttacaggcgt cccgtcctca tggctcatgc aggagtttga	ggctgccaac cccgagcctg gagccaccgc gcatgaatgc ctgtaatccc	aacacattat aattttcata gcccggctgt cagagttacc agctcttggg	60 120 180 240 300 360 420 454
<210> 33 <211> 230 <212> DNA <213> Homo <220> <221> SITE						
<222> (26)	uals a,t,g,	or c		,		
<400> 33 gctgctatgg gaagcaaacg gccgctgagg	uals a,t,g, ctgaactttt agggaggaaa tcaggaaggc acccttcaaa	attgancgtg acaaagccac aaggttgcca	acccctgccc ctaggtgtta	acagaggatg ctgtggggcc	gaacagaagg	60 120 180 230
<210> 34 <211> 753 <212> DNA <213> Homo	sapiens	-	•			
	aaggctggcc tcctcttagc					60 120

	· ·							
	aggagatgtc	ccaaaatcag	agaagaatgt	gaattccaag	aaagggatgt	gtgtacaaag	180	
	gacagacaat	gccaggacaa	caagaagtgt	tgtgtcttca	gctgcggaaa	aaaatgttta	240	•
	gatctcaaac	aagatgtatg	cgaaatgcca	aaagaaactg	gcccctgcct	ggcttatttt	300	-
	cttcattggt	ggtatgacaa	gaaagataat	acttgctcca	tgtttgtcta	tggtggctgc	360	
					tgaacacctg		420	
					cagaatgtgg	•	480	
					tccagtttca		540	
					tacctcctct		600	
					atctttatgt		660	
					caatttttc		720	
		taaaaaaaaa	_	_		oagoaaagoa	753	
	cccgacgaag						, 33	
	.210- 25							
	<210> 35 <211> 1022							
	<212> DNA							
	<213> Homo	ganieng						
	\213> 1101110	sapiens						
	<400> 35							
45					ggctgccgcc		60	
	ggcgaggagg	agccgccacc	gcctcctcct	gctgctgctg	cgctacctgg	tggtcgccct	120	
	gggctatcat	aaggcctatg	ggttttctgc	cccaaaagac	caacaagtag	tcacagcagt	180	
	agwgtaccaa	gaggctattt	tagcctgcaa	aaccccaaag	aagactgttt	sctccagatt	240	
j-t	agagtggaag	aaactgggtc	ggagtgtctc	ctttgtctac	tatcaacaga	ctcttcaagg	300	
	tgattttaaa	aatcgagctg	agatgataga	tttcaatatc	cggatcaaaa	atgtgacaag	360	
	aagtgatgcg	gggaaatatc	gttgtgaagt	tagtgcccca	tctgagcaag	gccaaaacct	420	
	ggaagaggat	acagtcactc	tggaagtatt	agtggctcca	gcagttccat	catgtgaagt	480	
Œ					tgtcaagaca		540	
					ttgctagaaa		600	
					aaaactggaa			
					gaagcccgca		720	
	'						780	
<u> </u>					ctcaacataa			
The state of the s					ggccttggtg		840	
			_		aagagtaatt		900	
			_	_	tcctttataa	·	960	
	tc cactttaga	gatacaccaa	agccaccgtt	gttacacaag	ttattaaact	attataaaac	1020 1022	
		•						
	<210> 36		•.					
	<211> 3044							
	<212> DNA				•			
	<213> Homo	sapiens						
	<220>		·					
	<221> SITE							
	<222> \$11E							
		uals a,t,g,	or c					
	<400> 36						60	
					gggcacgagg		60	
					attttggctg		120	
	gcagtaaagg	agcagctacg	ggaatataga	gagtģgggct	tccaggcaga	gaagcctgca	180	
	gtgcaaaggt	ctgcagacaa	cgacctgggc	gtcttcaagg	gacacaagga	atcatattgc	240	
	cagaacacat	tgtacaggta	gccaggtgtc	ggtctccagc	ctgagaactc	tggctgttgt	300	
					catcagcaag		360	
					gaagatggtg		420	
•					catcctccac		480	
			_ _			_		
						*		
			•					
								,

```
gcccgaaggy cacgcagggg gcgtccagcg acctgcacta ctgggtcggg aagcaggcgg
                                                                        540
gtgcggaagc gcagggcgct gcggaggcct tccagcagcg cctacaggac gagctggggg
                                                                        600
gccagaccgt gctgcaccgc gaggcgcagg gccacgagtc cgactgcttc tgcagctact
                                                                        660
tecgeeeggg aateatetae aggaagggag geetageate tgaeeteaag catgtggaga
                                                                        720
ccaacttgtt caacatccag cgactgctgc acatcaaagg gaggaagcac gtgtctgcca
                                                                        780
ctgaggtgga gctctcctgg aacagcttta ataagggtga catcttcctg ctggacctag
                                                                        840
                                                                        900
gcaagatgat gattcagtgg aatgggccca agaccagcat ttctgagaag gctcggggc
                                                                        960
tggycttgac ctacagcctc cgggacaggg aacgtggtgg tggtcgtgca cagattggtg
                                                                       1020
tggtggatga tgaggccaaa gccccggacc tcatgcagat catggaggct gtgctgggcc
gcagggtggg cagmctgcgt gccgccacgc ccagcaagga tatcaaccag ctgcagaagg
                                                                       1080
                                                                       1140
ccaatgttcg cctgtaccat gtctatgaga agggcaaaga cctggtggtc ctggagttgg
                                                                       1200
cgacccccc actgacccag gacctgctgc aggaggagga cttctacatc ctggaccagg
                                                                       1260
gtggcttcaa gatctatgtg tggcagggac gcatgtctag cctccaggag agaaaggctg
cetteageeg ggetgtggge tteateeagg ceaagggeta eeegaeetae aceaaegtgg
                                                                       1320
                                                                       1380
aggtggtgaa cgacggcgc gagtcggccg cgttcaagca gctcttccgg acttggtctg
agaagcggcg caggaaccag aagctcggcg ggagggataa atcgattcat gtaaagctgg
                                                                       1440
acgtgggcaa gctgcacacc cagcctaagt tagcggccca gctcaggatg gtggacgacg
                                                                       1500
                                                                       1560
getetgggaa ggtggaggtg tggtgeatee aggaettaea caggeageee gtggaeeeea
                                                                       1620
agegteatgg acagetgtgt geaggeaact getacettgt getetacaca taccagagge
tgggccgtgt ccagtacatc ctgtacctat ggcagggcca ccaggccact gcggatgaga
                                                                       1680
                                                                       1740
ttgaggccct gaacagcaac gctgaggaac tagatgtcat gtatggtggc gtcctagtac
                                                                       1800
aggagcatgt gaccatgggc agcgagcccc cccacttcct cgccatcttc cagggccagc
                                                                       1860
tggtgatctt ccaggagaga gctgggcacc acggaaaggg gcagtcagca tccaccacaa
ggcttttcca agtgcaaggc actgacagcc acaacaccag gaccatggag gtgccagccc
                                                                       1920
gtgcctcatc cctcaactcc agtgacatct tcttgctggt cacagccagc gtctgctacc
                                                                       1980
                                                                       2040
tetggtttgg gaagggetgt aatggtgate agegtgagat ggeaegggtg gtggteaetg
                                                                       2100
tcatttccag gaagaatgag gaaacggtgc tggagggtca ggagcctccc cacttctggg
aggccctggg aggccgggsc ccctacccca gcaacaagag gctccctgag gaggtcccca
                                                                       2160
                                                                       2220
gettecagee acgaetgttt gagtgeteca gecaeatggg etgeetggte etegeagaag
                                                                       2280
tggggttctt cagccaggag gacctggaca agtatgacat catgttactg gacacctggc
aggagatett eetgtggett ggggaagetg caagtgagtg gaaggaggeg gtggeetggg
                                                                       2340
                                                                       2400
gccaggagta cctgaagact cacccagcag ggaggagccc ggncacaccc atcgtgctgg
tcaagcaggg ccatgagcct cccaccttca ttggatggtt cttcacttgg gacccctaca
                                                                       2460
agtggactag ccacccatcc cacaaggaag tggtggatgg cagcccggca gcagcatcaa
                                                                       2520
                                                                       2580
ccatctctga gataacagca gaagtcaaca acttccggct atccagatgg ccgggcaatg
                                                                       2640
gcagggcagg tgccgtggcc ctgcaggccc tcaagggctc ccaggacagc tcagagaatg
                                                                       2700
atctggtgcg aagccccaag tcggctggca gcagaaccag cagctccgtc agcagcacca
gcgccacgat caacggggc ctgcgccggg aacaactgat gcaccaggct gttgaggacc
                                                                       2760
tgccagaggg cgtggaccct gcccgcaggg agttctatct ctcagactct gacttccaag
                                                                       2820
atatctttgg gaaatccaág gaggaattct acagcatggc cacgtggagg cagcggcagg
                                                                       2880
agaaaaagca gctgggcttc ttctgaaccc aagccctctc gactgcccct atcccctgga
                                                                       2940
ccccaacata cctacaatgc tggggaggcc ctgcttccac tcccctcaga ggcttttggt
                                                                       3000
catcctctgc gtgtcagtaa aagcaggcag cccataaaaa aaaa
                                                                       3044
```

```
<210> 37
<211> 541
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (420)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (486)
```

- J

```
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (530)
<223> n equals a,t,g, or c
<400> 37
ttcaaggatt ataatatgct gagtaaactt ttggcactaa ggaagccagc tacaggccac
                                                                         60
gtaatgaaaa ctattcagaa aacagttcag caaatactac tatttgaata cagttcaaat
                                                                        120
cgtatttata taaatactct gcctacatta tttaacccaa actggattat tcaccattct
                                                                        180
ttgaagatgc cttgtgtttt ctgttatcta cttctgctcg tgcagtttac ttacaccttc
                                                                        240
accettteaa atectaacte ttetteaagg cetgatteag attttaactt tttaaagget
                                                                        300
atctgaatca ttcaagggag aagataccct ttctctcata aaaacactta gagcaaacta
                                                                        360
ccactattaa atcacttatt gcatactgaa aaaaaaaaa aaaaaaactc gaagggggn
                                                                        420
ccggtaccca attcgcccta tagtgagtcg tattacaatt cactgggccg tcgttttaca
                                                                        480
acgtcntgac tgggaaaacc ctggcgttac ccaacttaat cgccttgcan cacatccccc
                                                                        540
                                                                        541
t
<210> 38
<211> ,1752
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (356)
<223> n equals a,t,g, or c
<400> 38
gtcggcggcg gcggcggg ttgaactgac tcggagcgag gagacccgag cgagcagacg
                                                                         60
eggeeetgge geeegeetg egeaeteace atggegatge attteatett eteagataca
                                                                        120
                                                                        180
gcggtgcttc tgtttgattt ctggagtgtc cacagtcctg ctggcatggc cctttcggtg
ttggtgctcc tgcttctggc tgtactgtat gaaggcatca aggttggcaa agcaagctgc
                                                                        240
tcaaccaggt actggtgaac ctgccaacct ccatcagcca gcagaccatc gcagagacag
                                                                        300
acggggactc tgcaggctca gattcattcc ctgttggcag aacccaccac aggtgntatt
tgtgtcactt tggccagtct ctaatccatg tcatccaggt ggtcatcggc tacttcatca
                                                                        420
tgctggccgt aatgtcctac aacacctgga ttttccttgg tgtggtcttg ggctctgctg
                                                                        480
tgggctacta cctagcttac ccacttctca gcacagctta gctggtgagg aacgtgcagg
                                                                        540
cactgaggct ggagggacat ggagccccct cttccagaca ctatacttcc aactgccctt
                                                                        600
                                                                        660
tcttctgatg gctattcctc caccttattc ccagcccctg gaaactttga gctgaagcca
gcacttgctc cctggagttc ggaagccatt gcagcaacct tccttctcag ccagcctaca
                                                                        720
                                                                        780
tagggcccag gcatggtctt gtgtcttaag acagctgctg tgaccaaagg gagaatggag
ataacagggg tggcagggtt actgagccca tgacaatgct tctctgtgac tcaaaccagg
                                                                         840
aatttccaaa gatttcaagc cagggagaag ggttcttggt gatgcagggc atggaacctg
                                                                         900
gacaccetca geteteetge tttgtgeett atetacagga geategeeca ttggaettee
                                                                         960
tgacctcttc tgtctttgag ggacagagac caagctagat cctttttctc acctttctgc
                                                                        1020
ctttggaaca catgaagatc atctcgtcta tggatcatgt tgacaaacta agtttttttt
                                                                       1080
atttttccca ttgaactcct agttggcaat tttgcacatt catacaaaaa aatttttaat
                                                                        1140
                                                                       1200
gaaatgattt cattgattca tgatggatgg cagaaactgc tgagacctat ttccctttct
tggggagaga ataagtgaca gctgattaaa ggcagagaca caggactgct ttcaggctcc
                                                                        1260
                                                                       1320
tggtttattc tctgatagac tgagctcctt ccaccagaag gcactgcctg caggaagaag
awgatctgat ggccgtgggt gtctgggaag ctcttcgtgg cctcaatgcc ctcctttatc
                                                                       1380
ctcatctttc ttctatgcag aacaaaagc tgcatctaat aatgttcaat acttaatatt
                                                                        1440
ctctatttat tacttactgc ttactcgtaa tgatctagtg gggaaacatg attcattcac
                                                                        1500
ttaaaatact gattaagcca tggcaggtac tgactgaaga tgcaatccaa ccaaagccat
                                                                        1560
tacatttttt gagttagatg ggactstctg gatagttgaa cctcttcact ttataaaaaa
                                                                       1620
```

ggaaagagag aaaatcactg ctgtatacta aatacctcac agattagatg aaaagatggt tgtaagcttt gggaattaaa aacaaacaaa tacattttag taaatatata tttttaaata aaaaaaagaa aa	1680 1740 1752
<210> 39	
<211> 1907	
<212> DNA	
<213> Homo sapiens	
·100> 30 ·	
<400> 39 agttcagggg cacaggggca caggcccacg actgcagcgg gatggaccag tactgcatcc	60
tgggccgcat cggggagggc gcccamggca tcgtcttcaa ggccaagcac gtggagactg	120
gcgagatagt tgccctcaag aaggtggccc taaggcggtt ggaagacggc ttccctaacc	180
aggecetgeg ggagattaag getetgeagg aratggagga caatcagtat gtggtacaac	240
tgaaggetgt gttcccacac ggtggagget ttgtgetgge etttgagtte atgetgtegg	300
atctggccga ggtggtgcgc catgcccaga ggccactagc ccaggcacag gtcaagagct	360
acctgcagat gctgctcaag ggtgtcgcct tctgccatgc caacaacatt gtacatcggg	420
acctgaaacc tgccaacctg ctcatcagcg cctcaggcca gctcaagata gcggactttg	480
gcctggctcg agtcttttcc ccagacggca gccgcctcta cacacaccag gtggccacca	540
ggageteact gagetgeegg actacaacaa gateteettt aaggageagg tgeecatgee	600
cctggaggag gtgctgcctg acgtctctcc ccaggcattg gatctgctgg gtcaattcct	660
tototaccot cotoaccago goatogoago ttocaaggot otootocato agtacttott	720
cacagetece etgeetgee atceatetga getgeegatt ceteagegte tagggggace	780
tgcccccaag gcccatccag ggcccccca catccatgac ttccacgtgg accggcctct	840
tgaggagtcg ctgttgaacc cagagctgat tcggcccttc atcctggagg ggtgagaagt	900
tggccctggt cccgtctgcc tgctcctcag gaccactcag tccacctgtt cctctgccac	960
ctgcctggct tcaccctcca aggcctcccc atggccacag tgggcccaca ccacaccctg	1020
cccttagcc cttgcgargg ttggtctcga ggcagaggtc atgttcccag ccaagagtat	1080
gagaacatcc agtcgagcag aggagattca tggcctgtgc tcggtgagcc ttaccttctg	1140
tgtgctactg acgtacccat caggacagtg agytctgctg ccagtcaagg cctgcatatg	1200
cagaatgacg atgcctgect tggtgctgct teceegagtg etgeeteetg gtcaaggaga	1260
agtgcagaga gtaaggtgtc cttatgttgg aaactcaagt ggaaggaaga tttggtttgg	1320
ttttattctc agagccatta aacactagtt cagtatgtga gatatagatt ctaaaaacct	1380
caggtggctc tgccttatgt ctgttcctcc ttcatttctc tcaagggaaa tggctaaggt	1440
ggcattgtct catggctctc gtttttgggg tcatggggag ggtagcacca ggcatagcca	1500
cttttgccct gagggactcc tgtgtgcttc acatcactga gcactcattt agaagtgagg	1560
gagacagaag totaggooca gggatggoto cagttgggga tocagcagga gaccototgo	1620
acatgagget ggtttaccaa catctactee etcaggatga gegtgageea gaageagetg	1680
tgtatttaag gaaacaagcg ttcctggaat taatttataa atttaataaa tcccaatata	1740
atcccagcta gtgctttttc cttattataa tttgataagg tgattataaa agatacatgg	1800 1860
aaggaagtgg aaccagatgc agaagaggaa atgatggaag gacttatggt atcagatacc	1907
aatatttaaa agtttgtata ataataaaga gtatgattgt ggttcaa	1307
<210> 40	
<211> 2350	
<212> DNA	
<213> Homo sapiens	
• ·	
<400> 40	
gaagaagagc gacctgccct aatggatgac agaaagcaca aaatttgtag catgtatgac	60
aacttaaggg ggaaattgcc tggacaagag aggcctagtg atgaccactt tgtacagatc	120
atgtgtatcc gaaaagggaa gagaatggtt gcccgtattc ttcctttcct	180
caagcagctg acattctcat gacaacagcc aggaacctcc ctttccttat caagaaggat	240
gcacaagatg aggtgctgcc atgcttactg agtcccttct ctctccttct ctatcatctt	300
ccatcagtga gtatcaccag ccttttgcga cataatgaac ctacctcaaa gtgcagctac	360
accagcactc tccaatcctc acctcactgc tgtgctccag aacaagtttg gcctgtcact	420

gstcctcatc	ctcctgagcc	gtggtgaaga	cctacagagt	tcagaccctg	ctacagaatc	480
aacacaaaat	aatcagtgga	cggaggtgat	gttcatggca	acacgagaac	ttctgcggat	540
tccccaaqca	qccctqqcca	agccaatctc	tatacctaca	aacctagtgt	ccctctttc	600
tcactatatt	gaccggcaga	aactgaactt	gctggagasa	aaactgcagc	tagttcaggg	660
gatacgataa	aagatctcca	aatgtgtcct	gtacctcctt	ttggctgcca	cctgcactgc	720
taccatcacc	aatggrgtgt	ttttaatgag	ggaaggaagg	tagctttttc	cccaaagcaa	780
agkmttgtgg	gatcgattcc	tgtttacagg	ggttgtctct	ctaaatgtca	gatatttccc	840
cactgctcta	tgaaatttgg	ctgggtgata	cttctgctgg	tttctttacc	ttctgtgtta	900
cagttctgca	tgtcctactt	ttactcagtt	ctgttttgca	tttwctttgc	cctagagaca	960
caaqtqtaat	ctctcccttt	atccctccac	tactccacct	cagagtagat	tgtagcctgc	1020
caaaqqattc	cttccctcat	cctattgaag	ttgttttttc	attgccccat	attaatatga	1080
ctatagaaga	gccaattaag	tagaaatcaa	gatatacaca	cacacataga	tacacacaca	1140
cacaccccat	acatgtattt	atgtggtctt	cagagggtcc	ttaaagaatg	aattttagat	1200
tqaaaaatat	ttagttgtct	cattacctct	tctaaacaca	aaccagctga	tgtattttaa	1260
tctgtttctg	ttctatcttg	taattaattt	ggtgggttct	acttgtttta	acataaataa	1320
agagtatgca	gcacgtttaa	taaaatcaga	actcttaatt	ggcttatgcc	caggtctagg	1380
ctgagaagtc	ctttttcttc	ttcccacctt	tatttcctta	gtttctgtcc	accttaatcg	1440
aaacaacaca	tggttatgtc	tttttcctgc	tacaactaca	gggtacttga	gcctttcccc	1500
tcaagtgcat	tcgaagtcac	ccaggatgat	cctcactagt	agcctgcttt	ggcagtgtgg	1560
ctttttqcac	acttgccctg	tcttcctgag	actacttcag	taagccatgc	ttccttcttc	1620
cccactttta	tttggtgtca	tgaatagaaa	cttccaaatg	taaccatgga	agctaagttt	1680
ggcctgcttt	gctttttagt	ctccacacca	tgggcagaac	tgctgtcttt	actacttcat	1740
ctcacccaag	tcccgttccc	aggcagccar	gggcctgggt	tttgaataat	tgcaagggcc	1800
agcctgccat	gatctttctc	acttactcct	ctcccattca	gcaatcaacc	agactaagga	1860
gttttgatcc	ctagtgatta	cagccctgaa	gaaaattaaa	tctgaattaa	ttttacatgg	1920
ccttcgtgat	ctttctgctg	ttcttacttt	ttcgaatgta	gttggggggt	gggagggaca	1980
ggttatggta	tttaaagaga	ataaacattt	tgcacataca	tgtattgtac	aacagtaaga	2040
tcctctqtta	aaaccagctg	tcctgttctc	catctccatt	tcttcccatg	ctgtaacccc	2100
aggetecace	agctgttccc	cagtgatgtt	acctagcttc	cctctaccgt	tgtctactga	2160
ccatttccac	tacatgcctt	tcctaccttc	ccttcacaac	caatcaagtg	aatacttgat	2220
tattatctct	tccttactgt	gctttatctt	ttttgtttgg	attggttcta	attaatgaaa	2280
ataaaagttt	ctaaatttac	atttttatag	ggtattgtaa	ataaaaacaa	attgtatact	2340
taaaaaaaaa						2350

```
<210> 41
<211> 1114
<212> DNA
<213> Homo sapiens
```

<400> 41 gggcagacga tgctgaagat gctctccttt aagctgctgc tgctggccgt ggctctgggc 60 ttctttgaag gagatgctaa gtttggggaa agaaacgaag ggagcggaca aggaggagaa 120 180 ggtgcctgaa tgggaacccc ccgaagcgcc tgaaaaggag agacaggagg atgatgtccc 240 agctggagct gctgagtggg ggagagatgc tgtgcggtgg cttctaccct cggctgtcct gctgcctgcg gagtgacagc ccggggctag ggcgcctgga gaataagata ttttctgtta 300 360 ccaacaacac agaatgtggg aagttactgg aggaaatcaa atgtgcactt tgctctccac 420 attctcaaag cctgttccac tcacctgaga gagaagtctt ggaaagagac ctagtacttc 480 ctctgctctg caaagactat tgcaaagaat tcttttacac ttgccgaggc catattccag 540 gtttccttca aacaactgcg gatgagtttt gcttttacta tgcaagaaaa gatggtgggt 600 tgtgctttcc agattttcca agaaaacaag tcagaggacc agcatctaac tacttggacc agatggaaga atatgacaaa gtggaagaga tcagcagaaa gcacaaacac aactgcttct 660 gtattcagga ggttgtgagt gggctgcggc agcccgttgg tgccctgcat agtggggatg 720 gctcgcaacg tctcttcatt ctggaaaaag aaggttatgt gaagatactt acccctgaag 780 840 gagaaatttt caaggagcct tatttggaca ttcacaaact tgttcaaagt ggaataaagg 900 ttggcttttt aaattttatt tatttttgtg ctggctacgt taattttatt ttagtgttac 960 cttcctcact gaaggtattt ctttgtaata aaagaaagaa tcttgcagga gaaaataagg 1020 gggcaacata agaaacaata attatggcac ctgaattagg acagtgacat taaakgttgg

1080 1114 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa <210> 42 <211> 1652 <212> DNA <213> Homo sapiens <220> <221> SITE <222> (1640) <223> n equals a,t,g, or c <220> <221> SITE <222> (1644) <223> n equals a,t,g, or c <220> <221> SITE <222> (1648) <223> n equals a,t,g, or c <400> 42 ttggcacctc taattgctct cgtgtattcg gtgccgcgac tttcacgatg gctcgcccaa 60 ccttactacc ttctgtcggc cctgctctct gctgccttcc tactcgtgag gaaactgccg 120 ccgctctgcc acggtctgcc cacccaacgc gaagacggta acccgtgtga ctttgactgg 180 agagaagtgg agatcctgat gtttctcagt gccattgtga tgatgaagaa ccgcagatcc 240 atcactgtgg agcaacatat aggcaacatt ttcatgttta gtaaagtggc caacacaatt 300 cttttcttcc gcttggatat tcgcatgggc ctactttaca tcacactctg catagtgttc 360 ctgatgacgt gcaaaccccc cctatatatg ggscctgagt atatcaagta cttcaatgat 420 aaaaccattg atgaggaact agaacgggac aagagggtca cttggattgt ggagttcttt 480 gccaattggt ctaatgactg ccaatcattt gcccctatct atgctgacct ctcccttaaa 540 tacaactgta cagggctaaa ttttgggaag gtggatgttg gacgctatac tgatgttagt 600 acgcggtaca aagtgagcac atcacccctc accaagcaac teectaccct gatectgtte 660 720 caaggtggca aggaggcaat gcggcggcca cagattgaca agaaaggacg ggctgtctca tggaccttct ctgaggagaa tgtgatccga gaatttaact taaatgagct ataccagcgg 780 gccaagaaac tatcaaaggc tggagacaat atccctgagg agcagcctgt ggcttcaacc 840 900 cccaccacag tgtcagatgg ggaaaacaag aaggataaat aagatcctca ctttggcagt gcttcctctc ctgtcaattc caggctcttt ccataaccac aagcctgagg ctgcagcytt 960 ttatttatgt tttccctttg gctgtgactg ggtggggcag catgcagctt ctgattttaa 1020 agaggcatct agggaattgt caggcaccct acaggaaggc ctgccatgct gtggccaact 1080 gtttcactgg agcaagaaag agatctcata ggacggaggg ggaaatggtt tccctccaag 1140 1200 cttgggtyag tgtgttaact gcttatcagc tattcagaca tctccatggt ttctccatga aactctgtgg tttcatcatt ccttcttagt tgacctgcac agcttggtta gacctagatt 1260 1320 taaccctaag gtaagatgct ggggtataga acgctaagaa ttttccccca aggactcttg 1380 cttccttaag cccttctggc ttcgtttatg gtcttcatta aaagtataag cctaactttg togotagtoo taaggagaaa ootttaacca caaagttttt atcattgaag acaatattga 1440 acaacccct attttgtggg gattgagaag gggtgaatag aggcttgaga ctttcctttg 1500 1560 tgtggtagga cttggaggag aaatcccctg gactttcact aaccctctga catactcccc acacccagtt gatggctttc cgtaataaaa agattgggat ttccttttga aaaaaaaaa 1620 1652 aaaaaggggg ccgctctagn ggtnccangc tt

```
<210> 43
<211> 1473
```

<212> DNA

<213> Homo sapiens								
<400> 43								
ggcacgagcc gcggggctgt	cacctccqcc	tctgctcccc	gacccggcca	tgcgcggcct	60			
cgggctctgg ctgctgggcg					120			
cctcatggag cagtatgagg					180			
agetetgeee teccaettge					240			
agggcacaac ttcaccctcc					300			
agagacctat acggctgcca					360			
ctgcttctac cagggccact					420			
ccggcctcag gggtttcttc					480			
aaggtggcga gggcggacgg					540			
ggacctgcgg ggtcagcgad	gacagcctgg	gcagcctcct	gggaccccgg	acggcagccg	600			
tcttcaggcc tcggcccggg					660			
atgtggtcgt ggacaatgca					720			
gggtgctgga ggtggtgaat	cacgtggaca	agctatatca	gaaactcaac	ttccgtgtgg	780			
tcctggtggg cctggagatt					840			
gtgtcacact ggagaacct	ctgacctggc	aggcacggca	acggacacgg	cggcacctgc	900			
atgacaacgt acagctcato					960			
gggtgtccgc catgtgctcd					1020			
ccgtgggcgt ggcctgcaco					1080			
atgagaacgt ccagggctgo					1140			
gcaaggccag cattggctco					1200			
ctggagagct ttttggagcg	gccgcagtcg	gtgtgcctcg	ccaacgcccc	tgacctcagc	1260			
cacctggtgg gcggccccgt					1320			
tgcggccccc ccgaggactg					1380			
gaggggccc agtgtgcgca					1440			
gagctgtgcc gtcccaagaa					1473			
.230- 44				•				
<210> 44								
<211> 772								
<212> DNA								
<213> Homo sapiens	,							
<400> 44				•				
tcggtttctc tctttgcag	g agcaccggca	gcaccagtgt	gtgaggggag	caggcagcgg	60			
tcctagccag ttccttgate					120			
ggcaccatga ggatcatgc	gctattcaca	gccatcctgg	ccttcagcct	agctcagagc	180			
tttggggctg tctgtaagg					240			
agggatccag atctctacca					300			
ggattgctca aagccctgag					360			
aaacgtgaca tgcatgact					420			
tctcctacgg atgtgaatc					480			
agagcagaat aggtactcc					540			
tataaaaata aaaaaataa					. 600			

tgtcccaatc cccaggtgcg cacgctcctg ttaccctttc tcttccctgt tcttgtaaca

ttcttgtgct ttgactcctt ctccatcttt tctacctgac cctggtgtgg aaactgcata

gtgaatatcc ccaaccccaa tgggcattga ctgtagaata ccctagagtt cctgtagtgt

cctacattaa aaatataatg tctctctcta ttcctcaaca aataaaggat tt

600

660

720

```
<210> 45
```

<211> 403

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

```
<222> (15)
<223> n equals a,t,g, or c
<400> 45
aattcggcac gagcntggaa tgggaggcta cggaagagat ggaatggata atcagggagg
                                                                          60
ctatggwtca kttggaagaw tgggaatggg gaacaattac agtggaggat atggtactcc
                                                                         120
tgatggtttg ggtggttatg gccgtggtgg tggaggcagt ggaggttact atgggcaagg
                                                                         180
cggcatgagt ggaggtggat ggcgtgggat gtactgaaag caaaaacacc aacatacaag
                                                                         240
 tcttgacaac agcatctggt ctactagact ttcttacaga tttaatttct tttgtatttt
                                                                         300
 aagaacttta taatgactga aggaatgtgt tttcaaaata ttatttggta aagcaacaga
                                                                         360
                                                                         403
 ttgtgatggg gaaaaaaaa aaaaaaagaa ttcaaaaagc ttc
<210> 46
<211> 928
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (49)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (78)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (148)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (163)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (532)
<223> n equals a,t,g, or c
<400> 46
 cctctcgcta attaacccaa ttggccaaaa gggggatgtt gcctgcaang ccaattaaat
                                                                          60
 ttgggtaaac ccccaggntt ttccccaagt ccacgacgtt gtaaaaaacg acggcccaat
                                                                          120
 tgaaattgtw aaaaacsaac ycactaanag ggccaawtgg gtnacsgggc ccccccccga
                                                                          180
 rtttttttt tttttttt ctgrttgwca atgagratat ttattgaggg tttattgagt
                                                                          240
 gcaggagaa gggctkgatg mcttgggrtg ggaggagaga cccctcccct gggatcctgc
                                                                          300
 agctcyagkc tcccgtgggt gggggtkagr gttgrgaacc tatgaacatt ctgtaggggc
                                                                          360
 cactgtcttc tccacggtgc tcccttcatg cgtgacctgg cagctgtagc ttctgtggga
                                                                          420
 cttccactgc tcrggcgtca ggctcaggta gctgctggcc gcgtacttgt tgttgctytg
                                                                          480
 tttggagggt ktggtggtct ccactcccgc cttgacgggg ctgcyatctg cnttccaggc
                                                                          540
                                                                          600
 cactgtcacr gctcccgggt agaagtcact katsagacac acyagtgtgg ccttgttggc
 ttgragetee teagaggagg gegggaacag agtgacmgwg gggkyrgeet tgggetgaee
                                                                          660
 taggacggtg accttggtcc cagttccgaa gacmccatga ttaccactgc tgtctgttga
                                                                          720
                                                                          780
 gtaacagtag tagtcagccg catcctccac ctgggcccca ctgatagtca aggtggccac
 tgtccctgar ctggagccar agaatctcts agggatccgg agggtcgttt gttgtcctca
                                                                          840
```

```
tagatgacca ggcacagggg cctggcctga cttctgktgg taccaatawa catatttctt
                                                                       900
cggcaatgca tctccaggag caggtgat
                                                                       928
<210> 47 ·
<211> 885
<212> DNA
<213> Homo sapiens
<400> 47
ggcacgaggg aatctgcacc atgccctggg ttctgctcct cctgaccctc ctcactcact
                                                                        60
ctgcagtgtc agtggtccag gcagggctga ctcagccccc ctcggtgtcc aaggacttga
                                                                       120
gacagaccgc cacactcacc tgcaccggga acaacaacaa tgttggcgac caaggagcag
                                                                       180
cttggctgca gcagcaccag ggccaccctc ccaaactcct gtcctacagg aataataacc
                                                                       240
ggccctcagg gatctcagag agattatctg catccaggtc aggagccaca tcctccctga
                                                                       300
ccattactgg actccagcct gaggacgagg ctgactatta ctgcgcagca tatgacagca
                                                                       360
gcctcgcagt ttggatgttc ggcggaggga ccaagctgac cgtcctaggt cagcccaagg
                                                                       420
                                                                       480
 ctgcccctc ggtcactctg ttcccaccct cctctgagga gcttcaagcc aacaaggcca
 cactggtgtg tctcataagt gacttctacc cgggagccgt gacagtggcc tggaaggcag
                                                                       540
 atagcagece egteaaggeg ggagtggaga ecaceacae etecaaacaa agcaacaaca
                                                                       600
 agtacgcggc cagcagctac ctgagcctga cgcctgagca gtggaagtcc cacaaaagct
                                                                       660
 acagctgcca ggtcacgcat gaagggagca ccgtggagaa gacagtggcc cctacagaat
                                                                       720
 gttcataggt tctcatccct cacccccac cacgggagac tagagctgca ggatcccagg
                                                                       780
 ggaggggtct ctcctcccac cccaaggcat caagcccttc tccctgcact caataaaccc
                                                                       840
                                                                       885
 <210> 48
<211> 2315
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2264)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2312)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2315)
<223> n equals a,t,g, or c
<400> 48
 tttttttttt tttgattttt caaaattaac ttttttatta atttaaaaat ccagaaatac
                                                                         60
                                                                        120
 aqtqactaca taaataagta ccataattag gtacatgtcc tgtgagaaca gtgaaagggt
                                                                        180
 aatactgtta tgttactctt acttgtttac atgagttaac tagaaaatgg ctacaactgc
 taaatgatgc ttatggtctt tgttgttcca agtgtttatg atacaaataa atacacaaga
                                                                        240
 agaaccacat ccattcttct ctactaacta caggcagctt ggcctcttta ccctatgtcc
                                                                        300
 tattctctac acaacaccaa acactggagg gtttctactt tgacttaaca cagctcccca
                                                                        360
 gctcctgctt cccacagcat tttgcaaagg tgtgtcccag cacctggagg caggagtata
                                                                        420
 tctagggaaa ctctctgcgt gttctcttaa ggctaagctt tcagagaaca cctgggtggg
                                                                        480
                                                                        540
 aaggetttgg gatgaateat eeagaaggag aaacacetet ttgeettagg atetagttae
 tagtctccac attatggaat cactgccacc tctgggacgg agggagcagc cgcataacac
                                                                        600
```

		,		,		
cttcccccct	ttaccacaca	cacacacaca	cacacacaca	cacacacaaa	ggagcaaatt	660
atgctgtgca	tggcgtgaat	aattgactgc	atttgagttt	ggagttttag	ggcactgttg	720
acttaagcaa	aataagcctg	cagtccagct	gcagcttgag	ttttcttgct	ttaccctatc	780
				ctctccaggt		840
				cacatctggc		900
ttctccttcg	gtgaagatct	tccactggct	cagggttgtt	ctggtcacca	gcttgaagtg	960
				tggaagtgct		1020
ctttcgaata	gtccaaacgt	ggacctctac	ctgaggtggt	ctctcagtct	ccagtgctat	1080
ttttctggtt	gtctccccat	cctccatgaa	tacagactca	tacacaggca	tcgtttcttc	1140
cccgcagaag	tagcctttat	tgtcaaagct	ttggcctgga	agttcttctg	gacacacctt	1200
gcagcatttt	ccgtctattt	tttgaggata	cttgcagggg	tatcgattgg	ggcagtggat	1260
tttcttacac	tcttgcttgg	tgacattaca	agtacatagc	acacactcca	caatgccaaa	1320
tgcccggagg	tttgggtgcc	aggactcgcc	atgagaatag	gtctttccat	tggaaacaca	1380
cacttgtcca	tgcttgtgtt	tgttattgat	gacaatttgc	acaatggttc	ctgatgcttg	1440
ctgggaatcc	ataagagctc	cccggtgact	tctggcccca	ggaaagcggg	acagacctcc	1500
agcctgtcgg	cttggtggag	gatcatagtg.	agagcggtgg	taagaatgtc	ttgcttctct	1560
gttggcaggt	tgccggaaga	tatcaccatc	agaatgttcc	catgacagtt	ctccatctcc	1620
				aaggcacagg		1680
gcaagtcttg	agaccacaat	acacgtttcc	ctccgaacag	ctgcactggg	tgcattgatt	1740
gggttgccga	ttctgaaaga	gcccttcagc	tacgaacagc	tctccatgtt	ggtaagttgt	1800
				actgggggta		1860
				gaaaggcaat		1920
				cagatgcagt		1980
				cccactctgt		2040
ttgaaacatg	caatatgtct	ctgaatgttt	tacttgctct	gtttkgcctc	cttctagcaa	2100
aagaaagctc	gtgccgaatt	cctgcagccc	ggggggatcc	actagttcta	gagcggccgc	2160
caccgcggtg	ggagctccag	cttttggttc	cctttagtga	ggggttaatt	tcgagcttgg	2220
cggtaatcat	gggtcatagc	ttgtttcctg	gtgttgaaat	tggntatccc	gctcacaaat	2280
tccacaacaa	caatacgagc	cggaagcata	angtn			2315
					•	

```
<210> 49
<211> 3175
<212> DNA
<213> Homo sapiens
```

ttttttttgt caatcacttt aatagatgtc cataggtagt tcatatgaat gcttaagtta 60 caaaattagc tgccatggtc caaatgtatg ggactttagg aaagcttttc ttactcaaaa 120 gataactaag actatcaact ttgatttcta aaatgtaatt taaaggtttg taaaacaagg 180 240 aacttcatga actgttaaaa atattacatt tgcatctctc agtttacata tttctgtatt 300 aacttggaga aaaacccatg tgaaaagttt ccatgcagtt acaaaggcag cagcacatgc 360 tgttttcaca gcaacttgtt attgcctcag aacaggcctg cactaaagca tcaacaaaaa 420 atacccacca ccccactccc accagaaaac ccaaccctta cccatccccg gcaaaaatta 480 cctggtacaa gcaatgacct aaaaatgctt tcttggtaag aagcatttat aaaatgcaga 540 gatctgaaca agctaagtgc tcgtgcagat acatgggcct ctcctccaag agttggttcc 600 gcaagaggtg gaaagaactc tcaatagttt aggaaagctc attttcaaaa gtatacttac 660 acatattcat ggccatttct ttgaaagaac atacccagcc tcaactgtgg aaaagataaa 720 agcagaggga gaagcaacgg cacacagcca taatatagag aacagagctt ctccatgaac 780 atccaccagg ctgcagcaac caagaaggaa aaaacatttg tgatttcaca cagaccaatg 840 atcttaccta ggtgaagcat taatttttca tgcatttgtt actcaagaaa ataaacatac 900 aaccacttaa aatacagcat tcacgttgtc actggttcgt ggtatcaggt aaggaaaaaa 960 tgatgctcct gtccctagaa ttttccatgt acatgtcagt atcctaatgc ctacagactt 1020 cctattaatt ttgttatcag catctcccac ctaaaaacat acactacatt atgttctggg 1080 tccctgaaat agaaaacatc aagcaatgtt tattgtgcaa ttccaatcat tatttgcaga 1140 atcttggttt agagtcagtc tttatagcca tttcaactgc ttggtttaaa caaaaagcaa 1200 caatctggtt atctacctat aaatttcayg gtatttcttt aaacactgaa gtactaaaag 1260

							•
	cactgatgat	ttgtattata	atttttaaaa	tatttaaaac	ctacacagat	ttcatagatc	1320
			aaaataattt				1380
			caatctctgt				1440
			tgcccaagac				1500
			tgaattcaga				1560
			ttcactttga				1620
			aatgcagcct				1680
			ttctctgctc				1740
			gtcagtttca				1800
			tctctgttga				1860
			ggtagcagtg				1920
			aacaacagtg				1980
			tttggaccag				2040
			agaaagtgaa				2100
			atggccaaag				2160
			tcactcaaat				2220
			aatacgtagg				2280
			actggcctca				2340
			tggataagca				2400
			ttctcctggt				2460
			aaagtaaagt				2520
			ctgtttttat				2580
			aaaatttcta				2640
			gttattgggt				2700
			tcttcatcat				2760
			tctccttctt				2820
			tcagtgátta				2880
	cttccatgac	atcctcaaat	tcagcgaagt	cattatcatc	atactctact	atgtcctcct	2940
			ttggcttcag				3000
			attgcacctt				3060
	ccggcccagc	gccctgcgtc	cgacacccct	gcccggcctg	ctctcggcct	ggccgccgcc	3120
			actgccccgg				3175
			•				
			•		. ~		
•	<210> 50				•	•	
	<211> 783				•		
	-010- DATA						

```
<210> 50
<211> 783
<212> DNA
<213> Homo sapiens
```

-

<	4	0	0	>	5	0

•	(4007 JO						·
	ggcacgcgga	aaggctggcc	tctcttcamc	atgggmtctt	ctggactttt	gagcctcctg	. 60
			gaatgtccag				120
	aggagatgtc	ccaaaatcag	agaagaatgt	gaattccaag	aaagggatgt	gtgtacaaag	180
			caagaagtgt				240
	gatctcaaac	aagatgtatg	cgaaatgcca	aaagaaactg	gcccctgcct	ggcttatttt	300
	cttcattggt	ggtatgacaa	gaaagataat	acttgctcca	tgtttgtcta	tggtggctgc	360
	caggggaaac	aataacaact	tccaatccaa	agccaactgc	ctgaacacct	gcaagaataa	420
	acgctttccc	tgattggata	aggatgcact	ggaagaactg	ccagaatgtg	gctcatgctc	480
	tgagtactgt	tcctgtacct	gactgatgct	ccagactggc	ttccagtttc	actctcagca	540
	ttccaagatc	ttagcccttc	ccagaacaga	acgcttgcat	ctacctcctc	ttcctccatc	600
	tttggctctt	ttgatgcaca	atatccatcc	gttttgattt	catctttatg	tcccctttat	660
	ctccaacttc	tagaactccc	agtttatacc	tgtgtcactc	tcaattttt	ccagtaaagt	720
	acttgatgtw	gaaaaaaaaa	aaaaaaaaa	aaaaccggca	cgaggggggg	cccggtaccc	780
	aat						783

```
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (60)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2388)
<223> n equals a,t,g, or c
<400> 51
 ctctaagaac ctagtggatc cccccggcct gcaggaattc gggcacggag gggagacttn
                                                                          60
 ctgtggctaa gggagggcgg gaagggccct ctgtggggct gccattttgg ctgggaccta
                                                                         120
                                                                         180
 aatgcagtaa aggagcagct acgggaatat agagagtggg gcttccaggc agagaagcct
 gcagtgcaaa ggtctgcaga caacgacctg ggcgtcttca agggacacaa ggaatcatat
                                                                         240
 tgccagaaca cattgtacag gtagccaggt gtcggtctcc agcctgagaa ctctggctgt
                                                                         300
 tgttccttgt gtcgtcccat attcctgcct ggcctgcgat ggacatcagc aagggcctcc
                                                                         360
 caggcatgca gggaggcctc cacatatgga tctctgagaa ccggaagatg gtgccggtac
                                                                         420
                                                                         480
 ccgaggggc ttacgggaac tttttcgagg aacactgcta tgtcatcctc cacgtccccc
                                                                         540
 agagecegaa ggycaegeag ggggegteea gegaeetgea etaetgggte gggaageagg
 cgggtgcgga agcgcagggc gctgcggagg ccttccagca gcgcctacag gacgagctgg
                                                                         600
 ggggccagac cgtgctgcac cgcgaggcgc agggccacga gtccgactgc ttctgcagct
                                                                         660
 acttccgccc gggaatcatc tacaggaagg gaggcctagc atctgacctc aagcatgtgg
                                                                         720
                                                                         780
 agaccaactt gttcaacatc cagcgactgc tgcacatcaa agggaggaag cacgtgtctg
 ccactgaggt ggagctctcc tggaacagct ttaataaggg tgacatcttc ctgctggacc
                                                                         840
                                                                         900
 taggcaagat gatgattcag tggaatgggc ccaagaccag catttctgag aaggctcggg
                                                                         960
 ggctggyctt gacctacagc ctccgggaca gggaacgtgg tggtggtcgt gcacagattg
                                                                        1020
 gtgtggtgga tgatgaggcc aaagccccgg acctcatgca gatcatggag gctgtgctgg
                                                                        1080
 gccgcagggt gggcagmctg cgtgycgcca cgcccagcaa ggatatcaac cagctgcaga
                                                                        1140
 aggccaatgt tcgcctgtac catgtctatg agaagggcaa agacctggtg gtcctggagt
                                                                        1200
 tggcgacccc cccactgacc caggacctgc tgcaggagga ggacttctac atcctggacc
 agggtggctt caagatctat gtgtggcagg gacgcatgtc tagcctccag gagagaaagg
                                                                        1260
 ctgccttcag ccgggctgtg ggcttcatcc aggccaaggg ctacccgacc tacaccaacg
                                                                        1320
                                                                        1380
 tggaggtggt gaacgacggc gccgagtcgg ccgcgttcaa gcagctcttc cggacttggt
 ctgagaagcg gcgcaggaac cagaagmtcg gcgggaggga taaatcgatt catgtaaagc
                                                                        1440
 tggacgtggg caagctgcac acccagccta agttagcggc ccagctcagg atggtggacg
                                                                        1500
                                                                        1560
 acggctctgg gaaggtggag gtgtggtgca tccaggactt acacaggcag cccgtggacc
                                                                        1620
 ccaagegtea tggacagetg tgtgcaggea actgetacet tgtgctetac acataccaga
 ggctgggccg tgtccagtac atcctgtacc tatggcaggg ccaccaggcc actgcggatg
                                                                        1680
                                                                        1740
 agattgaggc cctgaacagc aacgctgagg aactagatgt catgtatggt ggcgtcctag
                                                                        1800
 tacaggagca tgtgaccatg ggcagcgagc cccccactt cctcgccatc ttccagggcc
                                                                        1860
 agctggtgat cttccaggag agagctgggc accacggaaa ggggcagtca gcatccacca
                                                                        1920
 caaggetttt ccaagtgeaa ggeactgaca gecacaacae caggaceatg gaggtgeeag
 cccgtgcctc atccctcaac tccagtgaca tcttcttgct ggtcacagcc agcgtctgct
                                                                        1980
 acctctggtt tgggaaaggg ctgtaatggt gatcagcgtg agatggcacg ggtggtggtc
                                                                        2040
 actgtcattt ccaggaagaa tgaggaaacg gtgctggagg gtcaggagcc tccccacttc
                                                                        2100
 tgggaggccc tgggaggccg gggcccccta ccccagcaac aagaggctcc ctgaggaggt
                                                                        2160
                                                                        2220
 ccccagcttc cagccacgac tgtttgagtg ctccagccac atgggctgcc tggtcctcgc
 agaagtgggg ttcttcagcc aggaggacct ggacaagtat gacatcatgt tactggacac
                                                                        2280
 ctggcaggag atcttcctgt ggcttgggga agctgcaagt gagtggaagg aggcggtggc
                                                                        2340
                                                                        2400
 ctggggccag gagtacctga agactcaccc agcagggagg agcccggnca cacccatcgt
 gctggtcaag cagggscatg agcctcccac cttcattgga tggttcttca cttgggaccc
                                                                        2460
                                                                        2520
 ctacaagtgg actagccacc catcccacaa ggaagtggtg gatggcagcc cggcagcagc
 atcaaccatc tctgagataa cagcagaagt caacaacttc cggctatcca gatggccggg
                                                                        2580
 caatggcagg gcaggtgccg tggccctgca ggccctcaag ggctcccagg acagctcaga
                                                                         2640
```

```
gaatgatytg gtgcgaagcc ccaagtcggc tggcagcaga accagcagct ccgtcagcag
                                                                        2700
caccagcgcc acgatcaacg ggggcctgcg ccgggaacaa ctgatgcacc aggctgttga
                                                                        2760
ggacctgcca gagggcgtgg accctgcccg cagggagttc tatctctcag actctgactt
                                                                        2820
ccaagatatc tttgggaaat ccaaggagga attctacagc atggccacgt ggaggcagcg
                                                                        2880
gcaggagaaa aagcagctgg gcttcttctg aacccaagcc ctctcgactg cccctatccc
                                                                        2940
ctggacccca acatacctac aatgctgggg aggccctgct tccactcccc tcagaggctt
                                                                        3000
                                                                        3030
 ttggtcatcc tctgcgtgtc agtaaaagca
<210> 52
<211> 61
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 52
Met Glu His Ala Ala Gly Leu Pro Val Thr Arg His Pro Leu Ala Leu
                                                          15
                                      10
  1
Leu Leu Ala Leu Cys Pro Gly Pro Phe Pro Ala Leu Leu Pro Leu
                                                      30
             20
                                  25
Leu Pro Trp Gly Tyr Pro Leu Ala Pro Pro Gly Leu Cys Lys Leu Pro
                                                  45
         35.
                             40
Gln Gly Ala Pro Leu Pro Cys Ser Ser Xaa Leu Thr Ser
     50
                         55
<210> 53
<211> 243
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 53
Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala Xaa Gly
                                      10
Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Val Ala Leu
                                                      30
             20
                                  25
Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala
                                                  45
         35
```

Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val
50 60

Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Gly Phe Val Leu Ala 65 70 75 80

Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln 85 90 95

Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu 100 105 110

Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu 115 120 125

Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala 130 135 140

Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr 145 150 155 160

Thr His Gln Val Ala Thr Arg Ser Ser Leu Ser Cys Arg Thr Thr 165 170 175

Arg Ser Pro Leu Arg Ser Arg Cys Pro Cys Pro Trp Arg Xaa Cys Cys 180 185 190

Leu Thr Ser Leu Pro Arg His Trp Ile Cys Trp Val Asn Ser Phe Ser 195 200 205

Thr Leu Leu Thr Ser Ala Ser Gln Leu Pro Arg Leu Ser Ser Ile Ser 210 215 220

Thr Ser Ser Gln Leu Pro Cys Leu Pro Ile His Leu Ser Cys Arg Phe 225 230 235 240

Leu Ser Val

<210> 54

<211> 65

<212> PRT

<213> Homo sapiens

<400> 54

Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
1 5 10 15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro 20 25 30

Gly Ser Gln Gly Leu Gly Leu Asn Asn Cys Arg Ala Ala Cys His Asp 35 40 45

Leu Ser His Leu Leu Ser His Ser Ala Ile Asn Gln Thr Lys Glu
50 55 60

15

Phe 65 <210> 55 <211> 37 <212> PRT <213> Homo sapiens <400> 55 Met Leu Ala Arg Lys Ala Glu Arg Gly Ser Met Gly Thr Ala Arg Asp 10 1 . 5 Ser His Ile Leu Leu Val Cys Ser Val Val His Pro Ala Ser Ala Gln 20 25 Pro Val Tyr Thr Val 35 <210> 56 <211> 317 <212> PRT <213> Homo sapiens <400> 56 Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe 1 10 Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Ala Arg 30 20 25 Arg Arg Cys Leu Asn Gly Asn Pro Pro Lys Arg Leu Lys Arg Arg 45 35 40 Asp Arg Arg Met Met Ser Gln Leu Glu Leu Leu Ser Gly Gly Glu Met

Leu Cys Gly Gly Phe Tyr Pro Arg Leu Ser Cys Cys Leu Arg Ser Asp 80 75 65 70 Ser Pro Gly Leu Gly Arg Leu Glu Asn Lys Ile Phe Ser Val Thr Asn 95 90 85 Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile Lys Cys Ala Leu Cys 100 105 110 Ser Pro His Ser Gln Ser Leu Phe His Ser Pro Glu Arg Glu Val Leu 115 120 125 Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys Asp Tyr Cys Lys Glu 140 130 135 Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly Phe Leu Gln Thr Thr 160 150 155 145 Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys Asp Gly Gly Leu Cys 175 170 165

Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly Pro Ala Ser Asn Tyr 180 185 190

Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu Glu Ile Ser Arg Lys
195 200 205

His Lys His Asn Cys Phe Cys Ile Gln Glu Val Val Ser Gly Leu Arg 210 215 220

Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly Ser Gln Arg Leu Phe 225 230 235 240

Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu Thr Pro Glu Gly Glu 245 250 255

Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys Leu Val Gln Ser Gly
260 265 270

Ile Lys Val Gly Phe Leu Asn Phe Ile Tyr Phe Cys Ala Gly Tyr Val 275 280 285

Asn Phe Ile Leu Val Leu Pro Ser Ser Leu Lys Val Phe Leu Cys Asn 290 295 300

Lys Arg Lys Asn Leu Ala Gly Glu Asn Lys Gly Ala Thr 305 315

<210> 57

<211> 41

<212> PRT

<213> Homo sapiens

<400> 57

Met Ser Trp Gly Ile Trp Lys Gly Leu Asp Leu Phe Pro Leu Ile Lys
1 5 10 15

Gly Asn Ser Ser Leu Cys Leu Phe Leu Leu Val Val Pro Lys Gly Tyr 20 25 30

Ser Ser Ser Glu Ile Thr Arg Ala Leu 35

<210> 58

<211> 57

<212> PRT

<213> Homo sapiens

<400> 58

Met Ser Leu Pro Cys His Leu Leu Pro Gly Leu Leu Gln Gln Leu Leu
1 5 10

Thr Ser Leu Pro Ala Phe Gln Phe Ser Ala Pro Leu Gln Val Phe Ser 20 25 30

Leu Asp Gly Leu Ser Leu Pro Ala Pro Lys Leu Leu Thr Ala Ser Leu

35 40 45

Cys Leu Gln Asp Glu Val Arg Ala Val
50 55

<210> 59

<211> 52

<212> PRT

<213> Homo sapiens

<400> 59

Met Ser Ser Trp Pro Phe Cys Pro Ser Leu Cys Phe Ser Leu Ser Asn 1 5 10

Leu Ile Pro Gly Ser Gly Leu Leu Pro Val Glu Thr Gly Glu Leu Gly
20 25 30

Leu Leu Ser Ala Ala Tyr Leu Leu Pro Phe Thr Cys Ile Gln Leu Leu 35 40 45

Gly Leu Gly Pro 50

<210> 60

<211> 296

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (281)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60

Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg 1 5 10 15

Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu 20 25 30

Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly
35 40 45

Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg 50 55 60

Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn 65 70 75 80

Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe 90 95

Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met 100 105 110

Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys

Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro Glu Glu Gln Pro Val Xaa Ser Thr Pro Thr Thr Val Ser Asp Gly Glu Asn Lys Lys Asp Lys <210> 61 <211> 100 <212> PRT <213> Homo sapiens <400> 61 Met Arg Ala Phe Arg Lys Asn Lys Thr Leu Gly Tyr Gly Val Pro Met Leu Leu Leu Ile Val Gly Gly Ser Phe Gly Leu Arg Glu Phe Ser Gln 20. Ile Arg Tyr Asp Ala Val Lys Ser Lys Met Asp Pro Glu Leu Glu Lys

Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu Ser Glu Tyr Glu Lys Ile

Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn Ile Arg Gly Pro Arg Pro

Trp Glu Asp Pro Asp Leu Leu Gln Gly Arg Asn Pro Glu Ser Leu Lys

85

Thr Lys Thr Thr 100

<210> 62

<211> 47

<212> PRT

<213> Homo sapiens

<400> 62

Met Ile Gln Leu Ile Leu Gln Phe Trp Tyr Leu Phe Ser Met Leu Leu 1 5 10 15

Lys Pro Val Gln Gln Cys Gln His Cys Ser Gln Ile Thr Pro Ser Gly
20 25 30

Thr Met Pro Thr Ser Glu Thr Val Phe Leu Ile Leu Phe Leu Pro 35 40 45

<210> 63

<211> 162

<212> PRT

<213> Homo sapiens

<400> 63

Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys

1 10 15

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr
20 25 30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala 35 40 45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe 50 55 60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu 65 70 75 80

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln
85 90 95

Arg Ala Ala Gly Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe 100 105 110

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser 115 120 125

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp 130 135 140

Asp Val Met Cys Ser Glu Ser Tyr Leu Phe Gly Pro Tyr Tyr Ser Ser 145 150 155 160

Val Tyr

Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala 1 5 10

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val 20 25 30

Leu Pro Xaa Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser 35 40 45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr 50 60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly 65 75 80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
85 90 95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Val Glu 100 105 110

Gly Tyr Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg 115 120 125

Gly Phe Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp 130 135 140

Glú Glý Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu 145 150 155 160

Leu Gln Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser 165 170 175

Leu Leu Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp 180 185 190

Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val 195 200 205

Asp Asn Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His
210 220

Arg Val Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu 225 230 235 240

Asn Phe Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp 245 250 255

Arg Phe His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu 260 265 270

Thr Trp Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val 275 280 285

Gln Leu Ile Thr Gly Val Asp Phe Xaa Gly Thr Thr Val Gly Phe Ala 290 295 300

Arg Val Ser Thr Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp 305 310 315 320

His Ser Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu 325 330 335

<210> 65

<211> 356

<212> PRT

<213> Homo sapiens

<400> 65

Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met Asp Tyr Arg Gly Arg 1 5 10 15

Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp Ala His Ala Val Asp 20 25 30

Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe Arg Gly Arg Gly Thr
35 40 45

Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser His Ala Asp Phe Arg 50 55 60

Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala Arg Glu Gln Ser Arg 65 70 75 80

Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu Asp Phe Arg Asp Lys
85 90 95

Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly Ser Gly Thr Thr Asp 100 105 110

Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp Phe Arg Gly Arg 115 120 125

His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser

<400> 66

Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp Gly Met Pro Val Lys Asn Cys Ser <210> 66 <211> 125 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids

Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Ala Val

Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro 20 25 30

Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp
35 40 45

Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp 50 55 60

Pro Leu Leu Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly 65 70 75 80

Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg 85 90 95

Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly 100 105 110

Gln Gly Glu Gly Met Pro Ser Ser Asp Phe Thr Thr Glu 115 120 125

<210> 67

<211> 77

<212> PRT

<213> Homo sapiens

<400> 67

Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly
1 10 15

Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly Cys Pro 20 25 30

Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg
35 40 45

Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu Ser Asn 50 55 60

Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu
65 70 75

<210> 68

<211> 121

<212> PRT

<213> Homo sapiens

<400> 68

Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala 1 5 10 15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro 20 25 30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
35 40 45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu 50 60

Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
65 70 75 80

Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln
85 90 95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly 100 105 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu 115 120

<210> 69

<211> 26

<212> PRT

<213> Homo sapiens

<400> 69

Met Val Val Met Glu Val Leu Met Thr Met Val Ala Ile Ile Ile Thr 1 5 10 15

Ala Met Gly Met Met Ala Leu Met Thr Glu 20 25

<210> 70

<211> 235

<212> PRT

<213> Homo sapiens

<400> 70

Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val 1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp 20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro 50 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu 65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr 85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp 100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser <210> 71 <211> 217 <212> PRT <213> Homo sapiens <400> 71 Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp . 70 Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe

Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr Leu Glu Arg Ser Glu Lys Gly His Cys <210> 72 <211> 492 <212> PRT <213> Homo sapiens <400> 72 Met Lys Ala Phe His Thr Phe Cys Val Val Leu Leu Val Phe Gly Ser . 5 Val Ser Glu Ala Lys Phe Asp Asp Phe Glu Asp Glu Glu Asp Ile Val 2.0 Glu Tyr Asp Asp Asn Asp Phe Ala Glu Phe Glu Asp Val Met Glu Asp Ser Val Thr Glu Ser Pro Gln Arg Val Ile Ile Thr Glu Asp Asp Glu Asp Glu Thr Thr Val Glu Leu Glu Gly Gln Asp Glu Asn Gln Glu Gly Asp Phe Glu Asp Ala Asp Thr Gln Glu Gly Asp Thr Glu Ser Glu Pro Tyr Asp Asp Glu Glu Phe Glu Gly Tyr Glu Asp Lys Pro Asp Thr Ser Ser Ser Lys Asn Lys Asp Pro Ile Thr Ile Val Asp Val Pro Ala His Leu Gln Asn Ser Trp Glu Ser Tyr Tyr Leu Glu Ile Leu Met Val Thr Gly Leu Leu Ala Tyr Ile Met Asn Tyr Ile Ile Gly Lys Asn Lys Asn Ser Arg Leu Ala Gln Ala Trp Phe Asn Thr His Arg Glu Leu Leu Glu Ser Asn Phe Thr Leu Val Gly Asp Asp Gly Thr Asn Lys Glu Ala Thr Ser Thr Gly Lys Leu Asn Gln Glu Asn Glu His Ile Tyr Asn Leu Trp

		195					200	•				205			
Cys	Ser 210	Gly	Arg	Val	Cys	Cys 215	Glu	Gly	Met	Leu	Ile 220	Gln	Leu	Arg	Phe
Leu 225	Lys	Arg	Gln	Asp	Leu 230	Leu	Asn	Val	Leu	Ala 235	Arg	Met	Met	Arg	Pro 240
Val	Ser	Asp	Gln	Val 245	Gln	Ile	Lys	Val	Thr 250	Met	Asn	Asp	Glu	Asp 255	Met
Asp	Thr	Tyr	Val 260	Phe	Ala	Val	Gly	Thr 265	Arg	Lys	Ala	Leu	Val 270	Arg	Leu
Gln	Lys	Glu 275	Met	Gln	Asp	Leu	Ser 280	Glu	Phe	Cys	Ser	Asp 285	Lys	Pro	Lys
Ser	Gly 290	Ala	Lys	Tyr	Gly	Leu 295	Pro	Asp	Ser	Leu	Ala 300	Ile	Leu	Ser	Glu
Met 305	Gly	Glu	Val	Thr	Asp 310	Gly	Met	Met	Asp	Thr 315	Lys	Met	Val	His	Phe 320
Leu	Thr	His	Tyr	Ala 325	Asp	Lys	Ile	Glu	Ser 330	Val	His	Phe	Ser	Asp 335	Gln
Phe	Ser	Gly	Pro 340	Lys	Ile	Met	Gln	Glu 345	Glu	Gly	Gln	Pro	Leu 350	Lys	Leu
Pro	Asp	Thr 355	Lys	Arg	Thr	Leu	Leu 360	Phe	Thr	Phe	Asn	Val 365	Pro	Gly	Ser
Gly	Asn 370	Thr	Tyr	Pro	Lys	Asp 375	Met	Glu	Ala	Leu	Leu 380	Pro	Leu	Met	Asn
Met 385	Val	Ile	Tyr	Ser	Ile 390	Asp	Lys	Ala	Lys	Lys 395	Phe	Arg	Leu	Asn	Arg
Glu	Gly	Lys	Gln	Lys 405		Asp	Lys	Asn	Arg 410	Ala	Arg	Val	Glu	Glu 415	Asn
Phe	Leu	Lys	Leu 420	Thr	His	Val	Gln	Arg 425	Gln	Glu	Ala	Ala	Gln 430	Ser	Arg
Arg	Glu				Arg		Glu 440			Arg		Met 445	Asn	Glu	Glu
Asp	Pro 450	Glu	Lys	Gln	Arg	Arg 455	Leu	Glu	Glu	Ala	Ala 460	Leu	Arg	Arg	Glu
Gln 465	Lys	Lys	Leu	Glu	Lys 470	Lys	Gln	Met	Lys	Met 475	Lys	Gln	Ile	Lys	Va] 480
Lys	Ala	His	Val	Lys 485		Ser	Gln	Arg	Phe 490		Phe				

```
<211> 36
<212> PRT
<213> Homo sapiens
<400> 73
Met Leu Phe Leu Cys Leu Leu Pro Ser Leu Phe Pro Pro Gly Leu Pro
                                                          15
                  5
                                      10
  1
Thr Thr His Tyr Ile Thr Ser Ile Cys Asn Gln Ser Cys Tyr His His
             20
                                  25
Cys Ala Arg Ala
         35
<210> 74
<211> 74
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 74
Met Ala Glu Leu Leu Xaa Val Leu Ser Val Gln Ser Ala Val His
                                                           15
                  5
  1
Glu Val Glu Ala Asn Glu Gly Gly Lys Gln Ser His Thr Pro Ala His
             20
                                  25
                                                       30
Arg Gly Trp Asn Arg Arg Ala Ala Glu Val Arg Lys Ala Arg Leu Pro
                                                   45
                              40
Leu Gly Val Thr Val Gly Pro Arg Cys Arg His Ala Val His Pro Ser
                                              60
    ر50
                          55
Lys Gly Gly Ile Ser Ala Xaa Ala Val Leu
                      70
 65
<210> 75
<211> 133
<212> PRT
<213> Homo sapiens
<400> 75
Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu
                                      10
                                                           15
  1
Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg
                                  25
                                                       30
             20
```

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys 35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser 50 60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro 75 75 80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp 85 90 95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly
100 105 110

Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys
115 120 125

Asn Lys Arg Phe Pro 130

<210> 76

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76

Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Leu Arg Tyr
1 5 10 15

Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro 20 25 30

Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu 35 40 45

Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys
50 55 60

Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln 65 70 75 80

Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile 85 90 95

Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser

100 105 110 Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu 115 120 125 Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser 130 135 140 Ala Leu Ser Gly Thr Val Val Glu Leu Arg Cys Gln Asp Lys Glu Gly 145 150 155 160 Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu 165 170 175 Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met 180 185 190 Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp 195 200 205 Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg 210 215 220 Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Ile 225 230 . 235 240 Ile Ala Ala Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu 245 250 255 Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Thr Ser 260 265 270 Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn 275 280 285 Asp Phe Lys His Thr Lys Ser Phe Ile Ile 290 <210> 77 <211> 856 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (52) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (233)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (595) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (683) <223> Xaa equals any of the naturally occurring L-amino acids <400> 77 Met Asp Ile Ser Lys Gly Leu Pro Gly Met Gln Gly Gly Leu His Ile 15 10 Trp Ile Ser Glu Asn Arg Lys Met Val Pro Val Pro Glu Gly Ala Tyr 25 30 20 Gly Asn Phe Phe Glu Glu His Cys Tyr Val Ile Leu His Val Pro Gln 35 40 Ser Pro Lys Xaa Thr Gln Gly Ala Ser Ser Asp Leu His Tyr Trp Val 50 60 55 Gly Lys Gln Ala Gly Ala Glu Ala Gln Gly Ala Ala Glu Ala Phe Gln 65 70 75 Gln Arg Leu Gln Asp Glu Leu Gly Gly Gln Thr Val Leu His Arg Glu 95 90 85 Ala Gln Gly His Glu Ser Asp Cys Phe Cys Ser Tyr Phe Arg Pro Gly 100 105 110 Ile Ile Tyr Arg Lys Gly Gly Leu Ala Ser Asp Leu Lys His Val Glu 120 125 115 Thr Asn Leu Phe Asn Ile Gln Arg Leu Leu His Ile Lys Gly Arg Lys 130 135 His Val Ser Ala Thr Glu Val Glu Leu Ser Trp Asn Ser Phe Asn Lys 155 160 145 150 Gly Asp Ile Phe Leu Leu Asp Leu Gly Lys Met Met Ile Gln Trp Asn 165 170 Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala Arg Gly Leu Xaa Leu Thr 185 190 180 Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly Arg Ala Gln Ile Gly 195 200 Val Val Asp Asp Glu Ala Lys Ala Pro Asp Leu Met Gln Ile Met Glu 210 215 220 Ala Val Leu Gly Arg Arg Val Gly Xaa Leu Arg Ala Ala Thr Pro Ser 240 . 225 235 230 Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn Val Arg Leu Tyr His Val

Tyr Glu Lys Gly Lys Asp Leu Val Val Leu Glu Leu Ala Thr Pro Pro Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp Phe Tyr Ile Leu Asp Gln Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly Arg Met Ser Ser Leu Gln Glu Arg Lys Ala Ala Phe Ser Arg Ala Val Gly Phe Ile Gln Ala Lys Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val Val Asn Asp Gly Ala Glu Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr Trp Ser Glu Lys Arg Arg Arg Asn Gln Lys Leu Gly Gly Arg Asp Lys Ser Ile His Val Lys Leu Asp Val Gly Lys Leu His Thr Gln Pro Lys Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu Val Trp Cys Ile Gln Asp Leu His Arg Gln Pro Val Asp Pro Lys Arg His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr Gln Arg Leu Gly Arg Val Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His Gln Ala Thr Ala Asp Glu Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu Leu Asp Val Met Tyr Gly Gly Val Leu Val Gln Glu His Val Thr Met Gly Ser Glu Pro Pro His Phe Leu Ala Ile Phe Gln Gly Gln Leu Val Ile Phe Gln Glu Arg Ala Gly His His Gly Lys Gly Gln Ser Ala Ser Thr Thr Arg Leu Phe Gln Val Gln Gly Thr Asp Ser His Asn Thr Arg Thr Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Cys Asn Gly Asp Gln Arg

Glu Met Ala Arg Val Val Val Thr Val Ile Ser Arg Lys Asn Glu Glu Thr Val Leu Glu Gly Gln Glu Pro Pro His Phe Trp Glu Ala Leu Gly Gly Arg Xaa Pro Tyr Pro Ser Asn Lys Arg Leu Pro Glu Glu Val Pro Ser Phe Gln Pro Arg Leu Phe Glu Cys Ser Ser His Met Gly Cys Leu Val Leu Ala Glu Val Gly Phe Phe Ser Gln Glu Asp Leu Asp Lys Tyr Asp Ile Met Leu Leu Asp Thr Trp Gln Glu Ile Phe Leu Trp Leu Gly Glu Ala Ala Ser Glu Trp Lys Glu Ala Val Ala Trp Gly Gln Glu Tyr Leu Lys Thr His Pro Ala Gly Arg Ser Pro Xaa Thr Pro Ile Val Leu Val Lys Gln Gly His Glu Pro Pro Thr Phe Ile Gly Trp Phe Phe Thr Trp Asp Pro Tyr Lys Trp Thr Ser His Pro Ser His Lys Glu Val Val Asp Gly Ser Pro Ala Ala Ala Ser Thr Ile Ser Glu Ile Thr Ala Glu Val Asn Asn Phe Arg Leu Ser Arg Trp Pro Gly Asn Gly Arg Ala Gly Ala Val Ala Leu Gln Ala Leu Lys Gly Ser Gln Asp Ser Ser Glu Asn Asp Leu Val Arg Ser Pro Lys Ser Ala Gly Ser Arg Thr Ser Ser Ser Val Ser Ser Thr Ser Ala Thr Ile Asn Gly Gly Leu Arg Arg Glu Gln Leu Met His Gln Ala Val Glu Asp Leu Pro Glu Gly Val Asp Pro Ala Arg Arg Glu Phe Tyr Leu Ser Asp Ser Asp Phe Gln Asp Ile Phe Gly Lys Ser Lys Glu Glu Phe Tyr Ser Met Ala Thr Trp Arg Gln Arg Gln Glu Lys Lys Gln Leu Gly Phe Phe

<210> 78

```
<211> 39
<212> PRT
<213> Homo sapiens
<400> 78
Met Pro Cys Val Phe Cys Tyr Leu Leu Leu Leu Val Gln Phe Thr Tyr
  1
                                                          15
Thr Phe Thr Leu Ser Asn Pro Asn Ser Ser Ser Arg Pro Asp Ser Asp
             20
                                  25
                                                      30
Phe Asn Phe Leu Lys Ala Ile
         35
<210> 79
<211> 30
<212> PRT
<213> Homo sapiens
<400> 79
Met Ala Leu Ser Val Leu Val Leu Leu Leu Ala Val Leu Tyr Glu
                                      10
                                                          15
Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp
             20
                                                      30
<210> 80
<211> 45
<212> PRT
<213> Homo sapiens
<400> 80
Met Pro Ala Leu Val Leu Pro Arg Val Leu Pro Pro Gly Gln Gly
                                      10.
Glu Val Gln Arg Val Arg Cys Pro Tyr Val Gly Asn Ser Ser Gly Arg
             20
                                  25
                                                      30
Lys Ile Trp Phe Gly Phe Ile Leu Arg Ala Ile Lys His
                             40
<210> 81
<211> 39
<212> PRT
<213> Homo sapiens
<400> 81
Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp
                                      10
                                                          15
Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro
             20
                                  25
                                                      30
```

Gly Ser Gln Gly Pro Gly Phe 35

<210> 82

<211> 36

<212> PRT

<213> Homo sapiens

<400> 82

Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe 1 5 10

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Gln Gly
20 25 30

Gly Glu Gly Ala 35

<210> 83

<211> 293

<212> PRT

<213> Homo sapiens

<400> 83

Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg Leu Ser Arg
1 10 15

Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu Ser Ala Ala 20 25 30

Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro Thr 35 40 45

Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu 50 55 60

Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser 65 70 75 80

Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val
85 90 95

Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu 100 105 110

Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu 115 120 125

Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp 130 135 140

Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe 145 150 150

Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp 165 170 175 Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp 180 185 190

Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser 195 200 205

Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys 210 225

Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser 225 230 235 240

Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu 245 250 255

Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro 260 265 270

Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu 275 280 285

Asn Lys Lys Asp Lys 290

<210> 84

<211> 143

<212> PRT

<213> Homo sapiens

<400> 84

Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala 1 5 10

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val 20 25 30

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser 35 40 45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
50 60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly 65 70 75 80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr
85 90 95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu 100 105 110

Gly Thr Gly Leu Ser Arg Gln Pro Gln His Leu Cys Arg Pro Gln Gly
115 120 125

Phe Leu Pro Gly Gly Val Arg Pro Ala Pro Asp Arg Ala Pro Gly 130 135 140

```
<210> 85
<211> 121
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 85
Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala
  1
                                      10
                                                          15
Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
             20
                                  25
                                                      30
Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln
         35
                             40
                                                  45
Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu
     50
                         55
                                              60
Ser Gln Xaa Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg
 65
                     70
                                          75
Asp Met His Asp Phe Phe Val Gly Xaa Met Gly Lys Arg Ser Val Gln
                 85
                                      90
                                                          95
Pro Asp Ser Pro Thr Asp Val Asn Glu Asn Val Pro Ser Phe Gly
            100
                                105
                                                     110
Ile Leu Lys Tyr Pro Pro Arg Ala Glu
        115
                            120
<210> 86
<211> 25
<212> PRT
<213> Homo sapiens
<400> 86
Met Val Leu Leu Met Val Trp Val Val Met Ala Val Val Glu Ala
  1
                                      10
                                                          15
Val Glu Val Thr Met Gly Lys Ala Ala
             20
<210> 87
```

<211> 4

<212> PRT

<213> Homo sapiens

<400> 87

Ser Leu His Ala

1

<210> 88

<211> 235

<212> PRT

<213> Homo sapiens

<400> 88

Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val
1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp 20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val
35 40 45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro 50 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu 65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr 85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp 100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser 130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser 145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser 165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn 180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
195 200 205

Lys Ser His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr 210 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser 235

```
<210> 89
<211> 87
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 89
Met Ser Leu Asn Val Leu Leu Ala Leu Phe Xaa Leu Leu Leu Ala Lys
                                      10
                                                           15
Glu Ser Ser Cys Arg Ile Pro Ala Ala Arg Gly Asp Pro Leu Val Leu
             20
                                  25
                                                       30
Glu Arg Pro Pro Pro Arg Trp Glu Leu Gln Leu Leu Val Pro Phe Ser
         35
                              40
                                                  45
Glu Gly Leu Ile Ser Ser Leu Ala Val Ile Met Gly His Ser Leu Phe
     50
                          55
                                              60
Pro Gly Val Glu Ile Gly Tyr Pro Ala His Lys Phe His Asn Asn Asn
 65
                      70
                                          75
Thr Ser Arg Lys His Xaa Val
                 85
<210> 90
<211> 106
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 90
Met Ala Leu His Gly Phe His Phe Asp Leu Phe His Phe His Leu Leu
                                      10
                                                           15
Leu Phe Gln Leu Leu Xaa Leu Thr Pro Gln Cys Ser Leu Leu Gln Pro
             20
                                  25
                                                      30
Ala Leu Phe Leu Arg Ile Phe Leu Ile His Asp Ser Leu Leu Cys
         35
                              40
                                                  45
Ser Phe Phe Leu Leu Pro Pro Arg Leu Cys Cys Phe Leu Ser Leu His
```

50 55 60

Met Cys Gln Phe Gln Glu Val Leu Phe Tyr Ser Gly Thr Val Leu Ile 65 70 75 80

Cys Phe Leu Phe Ala Phe Ser Val Glu Ser Glu Leu Phe Gly Phe Ile 85 90 95

Asn Arg Ile Asn His His Val His Gln Gly
100 105

<210> 91

<211> 59

<212> PRT

<213> Homo sapiens

<400> 91

Met Tyr Ala Lys Cys Gln Lys Lys Leu Ala Pro Ala Trp Leu Ile Phe 1 10 15

Phe Ile Gly Gly Met Thr Arg Lys Ile Ile Leu Ala Pro Cys Leu Ser 20 25 30

Met Val Ala Arg Gly Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn 35 40 45

Cys Leu Asn Thr Cys Lys Asn Lys Arg Phe Pro 50

<210> 92

<211> 32

<212> PRT

<213> Homo sapiens

<400> 92

Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe 1 5 10

Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Leu 20 25 30

<210> 93

<211> 178

<212> PRT

<213> Homo sapiens

<400> 93

Phe Ser Val Thr Asn Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile 1 5 10

Lys Cys Ala Leu Cys Ser Pro His Ser Gln Ser Leu Phe His Ser Pro 20 25 30

Glu Arg Glu Val Leu Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys 35 40 45

Asp Tyr Cys Lys Glu Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly 50 55

Phe Leu Gln Thr Thr Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys 65 70 75 80

Asp Gly Gly Leu Cys Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly
85 90 95

Pro Ala Ser Asn Tyr Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu 100 105 110

Glu Ile Ser Arg Lys His Lys His Asn Cys Phe Cys Ile Gln Glu Val 115 120 125

Val Ser Gly Leu Arg Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly 130 135 140

Ser Gln Arg Leu Phe Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu 145 150 155 160

Thr Pro Glu Gly Glu Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys
165 170 175

Leu Val

<210> 94

<211> 216

<212> PRT

<213> Homo sapiens

<400> 94

Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met
1 5 10 15

Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val 20 25 30

Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr 35 40 45

Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr
50 60

Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly 65 70 75 80

Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu 85 90 95

Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp
100 105 110

Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu 115 120 125

Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg 130 135 140

Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr 145 150 155 160

Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met 165 170 175

Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe 180 185 190

Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln 195 200 205

Arg Ala Lys Lys Leu Ser Lys Ala 210 215

<210> 95

<211> 196

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95

Gln Leu Ile Val Thr Ala Arg Thr Thr Arg Gly Leu Asp Pro Leu Phe .

1 10 15

Gly Met Cys Glu Lys Phe Leu Gln Glu Val Asp Phe Phe Gln Arg Tyr
20 25 30

Phe Ile Ala Asp Leu Pro His Leu Gln Asp Ser Phe Val Asp Lys Leu 35 40 45

Leu Asp Leu Met Pro Arg Leu Met Thr Ser Lys Pro Ala Glu Val Val 50 55 60

Lys Ile Leu Gln Thr Met Leu Arg Gln Ser Ala Phe Leu His Leu Pro 65 70 75 80

Leu Pro Glu Gln Ile His Lys Ala Ser Ala Thr Ile Ile Glu Pro Ala 85 90 95

Gly Glu Phe Arg Gln Pro Phe Ala Val Tyr Leu Trp Val Gly Gly Cys
100 105 110

Pro Gly Met Leu Met Gln Pro Trp Ser Met Cys Arg Ile Leu Arg Thr 115 120 125 Leu Leu Arg Ser Arg Val Leu Tyr Pro Asp Gly Gln Xaa Ser Asp Asp 130 135 140

Ser Pro Gln Ala Cys Arg Leu Pro Glu Ser Trp Pro Arg Ala Ala Pro 145 150 155 160

Ala His His Ser Gly Leu Ser Leu Pro His Arg Leu Asp Arg Gly Met 165 170 175

Pro Gly Gly Ser Glu Ala Ala Gly Leu Gln Leu Gln Cys Ser His 180 185 190

Ser Lys Met Pro 195

<210> 96

<211> 255

<212> PRT

<213> Homo sapiens

<400> 96

Ile His Leu Ala Leu Val Glu Leu Leu Lys Asn Leu Thr Lys Tyr Pro 1 5 10 . 15

Thr Asp Arg Asp Ser Ile Trp Lys Cys Leu Lys Phe Leu Gly Ser Arg 20 25 30

His Pro Thr Leu Val Leu Pro Leu Val Pro Glu Leu Leu Ser Thr His
35 40 45

Pro Phe Phe Asp Thr Ala Glu Pro Asp Met Asp Asp Pro Ala Tyr Ile 50 55 60

Ala Val Leu Val Leu Ile Phe Asn Ala Ala Lys Thr Cys Pro Thr Met 65 70 75 80

Pro Ala Leu Phe Ser Asp His Thr Phe Arg His Tyr Ala Tyr Leu Arg 85 90 95

Asp Ser Leu Ser His Leu Val Pro Ala Leu Arg Leu Pro Gly Arg Lys

Leu Val Ser Ser Ala Val Ser Pro Ser Ile Ile Pro Gln Glu Asp Pro 115 . 120 . 125

Ser Gln Gln Phe Leu Gln Gln Ser Leu Glu Arg Val Tyr Ser Leu Gln 130 135 140

His Leu Asp Pro Gln Gly Ala Gln Glu Leu Leu Glu Phe Thr Ile Arg 145 150 155 160

Asp Leu Gln Arg Leu Gly Glu Leu Gln Ser Glu Leu Ala Gly Val Ala 165 170 175

Asp Phe Ser Ala Thr Tyr Leu Arg Cys Gln Leu Leu Leu Ile Lys Ala 180 185 190 Leu Gln Glu Lys Leu Trp Asn Val Ala Ala Pro Leu Tyr Leu Lys Gln 195 200 205

Ser Asp Leu Ala Ser Ala Ala Ala Lys Gln Ile Met Glu Glu Thr Tyr 210 215 220

Lys Met Glu Phe Met Tyr Ser Gly Val Glu Asn Lys Gln Val Val Ile 225 230 235 240

Ile His His Met Arg Leu Gln Ala Lys Ala Leu Gln Leu Ile Val 245 250 255

<210> 97

<211> 137

<212> PRT

<213> Homo sapiens

<400> 97

Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr Gly
1 10 15

Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val Leu 20 25 30

Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe Ser

40
45

Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn Met 50 55 60

Cys Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala Met 65 70 75 80

Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Gly Ile Ile Pro Phe 85 90 95

Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala Ile 100 105 110

Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln Leu 115 120 125

Pro Pro Asn Phe Pro Tyr Arg Asp Asp 130

<210> 98

<211> 87

<212> PRT

<213> Homo sapiens

<400> 98

Phe Pro Thr Glu Met Met Ser Cys Ala Val Asn Pro Thr Cys Leu Val
1 5 10 15

Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr
20 25 30

The property of the property o

Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn 35 40 45

Ser Ser Asp Val Leu Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu 50 60

Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro 65 70 75 80

Pro Pro Pro Tyr Val Ser Ala 85

<210> 99

<211> 97

<212> PRT

<213> Homo sapiens

<400> 99

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val 1 5 10 15

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser 20 25 30

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
35 40 45

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly 50 55 60

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr 65 70 75 80

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu 85 90 95

Gly

<210> 100

<211> 240

<212> PRT

<213> Homo sapiens

<400> 100

Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg Gly Phe 1 5 10 15

Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp Glu Gly 20 25 '30

Gly Glu Gly Arg His Ala Val Tyr Gln Ala Glu His Leu Leu Gln
35 40 45

Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser Leu Leu

	50					55					60				
Gly 65	Pro	Arg	Thr	Ala	Ala 70	Val	Phe	Arg	Pro	Arg 75	Pro	Gly	Asp	Ser	Leu 80
Pro	Ser	Arg	Glu	Thr 85	Arg	Tyr	Val	Glu	Leu 90	Tyr	Val	Val	Val	Asp 95	Asn
Ala	Glu	Phe	Gln 100	Met	Leu	Gly	Ser	Glu 105	Ala	Ala	Val	Arg	His 110	Arg	Val
Leu	Glu	Val 115	Val	Asn	His	Val	Asp 120	Lys	Leu	Tyr	Gln	Lys 125	Leu	Asn	Phe
Arg	Val 130	Val	Leu	Val	Gly	Leu 135	Glu	Ile	Trp	Asn	Ser 140	Gln	Asp	Arg	Phe
His 145	Val	Ser	Pro	Asp	Pro 150	Ser	Val	Thr	Leu	Glu 155	Asn	Leu	Leu	Thr	Trp 160
Gln	Ala	Arg	Gln	Arg 165	Thr	Arg	Arg	His	Leu 170	His	Asp	Asn	Val	Gln 175	Leu
Ile	Thr	Gly	Val 180	Asp	Phe	Thr	Gly	Thr 185	Thr	Val	Gly	Phe	Ala 190	Arg	Val
Ser	Ala	Met 195	Cys	Ser	His	Ser	Ser 200	Gly	Ala	Val	Asn	Gln 205	Asp	His	Ser
Lys	Asn 210	Pro	Val	Gly	Val	Ala 215	Cys	Thr	Met	Ala	His 220	Glu	Met	Gly	His
Asn 225	Leu	Gly	Met	Asp	His 230	Asp	Glu	Asn	Val	Gln 235	Gly	Cys	Arg	Cys	Glr 240

<210> 101

<211> 118

<212> PRT

<213> Homo sapiens

<400> 101

Phe Glu Ala Gly Arg Cys Ile Met Ala Arg Pro Ala Leu Ala Pro Ser 1 5 10 15

Phe Pro Arg Met Phe Ser Asp Cys Ser Gln Ala Tyr Leu Glu Ser Phe 20 25 30

Leu Glu Arg Pro Gln Ser Val Cys Leu Ala Asn Ala Pro Asp Leu Ser 35 40 45

His Leu Val Gly Gly Pro Val Cys Gly Asn Leu Phe Val Glu Arg Gly 50 60

Glu Gln Cys Asp Cys Gly Pro Pro Glu Asp Cys Arg Asn Arg Cys Cys

65 70	75	80
-------	----	----

Asn Ser Thr Thr Cys Gln Leu Ala Glu Gly Ala Gln Cys Ala His Gly 90 95

Thr Cys Cys Gln Glu Cys Lys Val Lys Pro Ala Gly Glu Leu Cys Arg

Pro Lys Lys Asp Met Cys 115

<210> 102

<211> 471

<212> PRT

<213> Homo sapiens

<400> 102

Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro 1 15

Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe 20 25 30

Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro 35 40 45

Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp 50 55 60

Gly Pro His Gly Asp Tyr Arg Gly Gly Glu Gly Pro Gly His Asp Phe 65 70 75 80

Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser 90 95

Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp 100 105 110

Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met 115 120 125

Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp 130 135 140

Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe 145 150 150

Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser 165 170 175

His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala 180 185 190

Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu 195 200 205

Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly

<400> 103

Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp Gly Met Pro Val Lys Asn <210> 103 <211> 125 <212> PRT <213> Homo sapiens

Gly Leu Gln Asp Ser Ala Arg Gly Gly Ser Gln Glu Glu Arg Phe Ala

Ti.
<u> </u>
Œ
ii-i
<u></u>

15 10 5 1 Pro Gly Trp Asn Arg Asp Tyr Pro Pro Pro Pro Leu Lys Ser His Ala 30 25 2,0 Gln Glu Arg His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe 45 40 35 Asp Phe Gln Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His 50 55 Ser Phe Ser Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly 75 65 70 Gly Glu Gly Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser 95 90 85 Asp Phe Gln Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp 110 100 105 Ile His Ser Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro 125 120 115 <210> 104 <211> 330 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (147) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (181) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (260) <223> Xaa equals any of the naturally occurring L-amino acids <400> 104 Met Leu Pro Asp Trp Lys Xaa Ser Leu Ile Leu Met Ala Tyr Ile Ile

10

15

Ile Phe Leu Thr Gly Leu Pro Ala Asn Leu Leu Ala Leu Arg Ala Phe Val Gly Arg Ile Arg Gln Pro Gln Pro Ala Pro Val His Ile Leu Leu Leu Ser Leu Thr Leu Ala Asp Leu Leu Leu Leu Leu Leu Pro Phe Lys Ile Ile Glu Ala Ala Ser Asn Phe Arg Trp Tyr Leu Pro Lys Val Val Cys Ala Leu Thr Ser Phe Gly Phe Tyr Ser Ser Ile Tyr Cys Ser Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly Val Ala Phe Pro Val Gln Tyr Lys Leu Ser Arg Arg Pro Leu Tyr Gly Val Ile Ala Ala Leu Val Ala Trp Val Met Ser Phe Gly His Cys Thr Ile Val Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp Pro Leu Leu Phe Tyr Phe Ser Ser Val Val Arg Arg Ala Phe Gly Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly Gln Gly Glu

Gly Met Pro Ser Ser Asp Phe Thr Thr Glu

325 330

```
Val
<210> 106
<211> 94
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 106
```

Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln 20 25 30

Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe
35 40 45

Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp 50 60

Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Ala65707580

Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys 85

<210> 107 <211> 143

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 107

Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr
1 10 15

Val Val Ala Pro Ser Ala Val Ala Xaa Lys Arg Pro Pro Glu Pro Thr 20 25 30

Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn Leu Tyr Glu 35 40 45

Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val
50 55 60

Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val 65 70 75 80

Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly 90 95

Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala 100 105 110

Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu 115 120 125

Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu 130 135 140

<210> 108

<211> 36

<212> PRT

<213> Homo sapiens

<400> 108

Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys
1 5 10 15

Arg Ser Val Gln Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val 20 25 30

Pro Ser Phe Gly

<210> 109

<211> 15

<212> PRT

<213> Homo sapiens

```
<400> 109
Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg
                                                           15
                                      10
  1
<210> 110
<211> 10
<212> PRT
<213> Homo sapiens
<400> 110
Asp Met His Asp Phe Phe Val Gly Leu Met
                   5
                                      10
 · 1
<210> 111
<211> 16
<212> PRT
<213> Homo sapiens
<400> 111
Glu Trp Glu Ala Thr Glu Glu Met Glu Trp Ile Ile Arg Glu Ala Met
                                                           15
                                      10
  1
<210> 112
<211> 35
<212> PRT
<213> Homo sapiens
<400> 112
Trp Glu Trp Gly Thr Ile Thr Val Glu Asp Met Val Leu Leu Met Val
                                      10
                                                           15
  1
                   5
Trp Val Val Met Ala Val Val Val Glu Ala Val Glu Val Thr Met Gly
                                  25
              20
Lys Ala Ala
         35
<210> 113
<211> 18
<212> PRT
<213> Homo sapiens
<400> 113
Gly Met Gly Gly Tyr Gly Arg Asp Gly Met Asp Asn Gln Gly Gly Tyr
                                                           15
                                       10
Gly Ser .
```

<210> 114

<211> 43

<212> PRT

<213> Homo sapiens

<400> 114

Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu

1 10 15

Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln 20 25 30

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met

<210> 115

<211> 43

<212> PRT

<213> Homo sapiens

<400> 115

Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
1 10 15

Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
20 25 30

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met

<210> 116

<211> 223

<212> PRT

<213> Homo sapiens

<400> 116

Trp Asp Ser Thr Thr Ser Trp Thr Thr Ile Trp Leu Gln Gln Arg Gly
1 5 10 15

Asn Ser Ser Val Leu Ser Arg Val Gly Asn Arg Ala Asn Gly Ile Thr 20 25 30

Leu Thr Met Asp Tyr Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln 35 40 45

Phe Ala Ser Lys Glu Ile Ala Glu Asn Ala Leu Gly Lys His Lys Glu 50 55 60

Arg Ile Gly His Arg Tyr Ile Glu Ile Phe Arg Ser Ser Arg Ser Glu 65 70 75 80

Ile Lys Gly Phe Tyr Asp Pro Pro Arg Arg Leu Leu Gly Gln Arg Pro 90 95

Gly Pro Tyr Asp Arg Pro Ile Gly Gly Arg Gly Gly Tyr Tyr Gly Ala 100 105 110 Gly Arg Gly Ser Met Tyr Asp Arg Met Arg Arg Gly Gly Asp Gly Tyr 115 120 125

Asp Gly Gly Tyr Gly Gly Phe Asp Asp Tyr Gly Gly Tyr Asn Asn Tyr 130

Gly Tyr Gly Asn Asp Gly Phe Asp Asp Arg Met Arg Asp Gly Arg Gly 145 150 150

Met Gly Gly His Gly Tyr Gly Gly Ala Gly Asp Ala Ser Ser Gly Phe 165 170 175

His Gly Gly His Phe Val His Met Arg Gly Leu Pro Phe Arg Ala Thr 180 185 190

Glu Asn Asp Ile Ala Asn Phe Phe Ser Pro Leu Asn Pro Ile Arg Val 195 200 205

His Ile Asp Ile Gly Ala Asp Gly Arg Ala Gln Glu Lys Gln Met 210 215 220

<210> 117

<211> 26

<212> PRT

<213> Homo sapiens

<400> 117

Phe Thr His Ser Phe Ile Leu Glu His Ala Phe Ser Leu Leu Ile Thr 1 5 10 15

Leu Pro Val Ser Ser Trp Ala Ala Asn Asn 20 25

<210> 118

<211> 384

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids <400> 118

Met Met Ile Gln Trp Asn Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala 1 5 10 15

Arg Gly Leu Xaa Leu Thr Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly 20 25 30

Gly Arg Ala Gln Ile Gly Val Val Asp Asp Glu Ala Lys Ala Pro Asp 35 40 45

Leu Met Gln Ile Met Glu Ala Val Leu Gly Arg Arg Val Gly Xaa Leu 50 60

Arg Xaa Ala Thr Pro Ser Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn 65 70 75 80

Val Arg Leu Tyr His Val Tyr Glu Lys Gly Lys Asp Leu Val Val Leu 85 90 95

Glu Leu Ala Thr Pro Pro Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp 100 105 110

Phe Tyr Ile Leu Asp Gln Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly 115 120 125

Arg Met Ser Ser Leu Gln Glu Arg Lys Ala Ala Phe Ser Arg Ala Val 130 135 140

Gly Phe Ile Gln Ala Lys Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val 145 150 155 160

Val Asn Asp Gly Ala Glu Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr 165 170 175

Trp Ser Glu Lys Arg Arg Arg Asn Gln Lys Xaa Gly Gly Arg Asp Lys 180 185 190

Ser Ile His Val Lys Leu Asp Val Gly Lys Leu His Thr Gln Pro Lys 195 200 205

Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu 210 215 220

Val Trp Cys Ile Gln Asp Leu His Arg Gln Pro Val Asp Pro Lys Arg 225 230 235 240

His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr 245 250 255

Gln Arg Leu Gly Arg Val Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His 260 265 270

Gln Ala Thr Ala Asp Glu Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu 275 280 285

Leu Asp Val Met Tyr Gly Gly Val Leu Val Gln Glu His Val Thr Met

.

•

. 221 2
Hind Hind Hind Hind Hind Hind Hind Hind
Œ
Hun Mund

	290					295					300					
Gly 305	Ser	Glu	Pro	Pro	His 310	Phe	Leu	Ala	Ile	Phe 315	Gln	Gly	Gln	Leu	Val 320	
Ile	Phe	Gln	Glu	Arg 325	Ala	Gly	His	His	Gly 330	Lys	Gly	Gln	Ser	Ala 335	Ser	
Thr	Thr	Arg	Leu 340	Phe	Gln	Val	Gln	Gly 345	Thr	Asp	Ser	His	Asn 350	Thr	Arg	
Thr	Met	Glu 355	Val	Pro	Ala	Arg	Ala 360	Ser	Ser	Leu	Asn	Ser 365	Ser	Asp	Ile	
Phe	Leu 370	Leu	Val	Thr	Ala	Ser	Val	Cys	Tyr	Leu	Trp 380	Phe	Gly	Lys	Gly	